



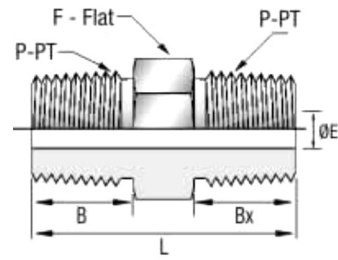
Pipe Fittings are available in a wide range of materials, sizes, connections and configurations.



FTS pipe fittings are available in a variety of sizes, materials and configurations. Our range includes pipe connectors and pipe and port adapters that are also available in a wide array of thread types. They are designed to provide leak-free connections and are suitable for use across a variety of applications that support many of today's major industrial markets.

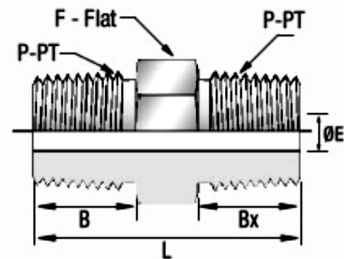


Male NPT Threads



| Pipe Size | Dimensions | | | | | SS 316 PART No. |
|-----------|------------|------|------|------|------|-----------------|
| P-PT, NPT | L | F | B | Bx | E | |
| 1/16 | 25.6 | 7.9 | 9.7 | 9.7 | 3 | HN-S16-NPTM-1 |
| 1/8 | 25.6 | 11.1 | 9.7 | 9.7 | 4.8 | HN-S16-NPTM-2 |
| 1/4 | 35.6 | 14.3 | 14.2 | 14.2 | 7.1 | HN-S16-NPTM-3 |
| 3/8 | 36.3 | 17.5 | 14.2 | 14.2 | 9.7 | HN-S16-NPTM-4 |
| 1/2 | 46.7 | 22.2 | 19.1 | 19.1 | 11.9 | HN-S16-NPTM-5 |
| 3/4 | 46.7 | 27 | 19.1 | 19.1 | 15.7 | HN-S16-NPTM-6 |
| 1 | 58.9 | 34.9 | 23.9 | 23.9 | 22.4 | HN-S16-NPTM-7 |
| 1 1/4 | 62.9 | 44.5 | 23.9 | 23.9 | 28.6 | HN-S16-NPTM-8 |
| 1 1/2 | 66.3 | 50.8 | 26.2 | 26.2 | 34 | HN-S16-NPTM-9 |
| 2 | 77.7 | 69.9 | 26.2 | 26.2 | 45 | HN-S16-NPTM-10 |

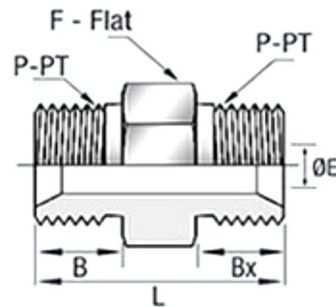
ISO Tapered



| Pipe Size | Dimensions | | | | | SS 316 Part No. |
|------------|------------|------|------|------|------|-----------------|
| P-PT, BSPT | L | F | B | Bx | E | |
| 1/8 | 25.6 | 11.1 | 9.7 | 9.7 | 4.8 | HN-S16-ISOT-1 |
| 1/4 | 35.6 | 14.3 | 14.2 | 14.2 | 7.1 | HN-S16-ISOT-2 |
| 3/8 | 36.3 | 17.5 | 14.2 | 14.2 | 9.7 | HN-S16-ISOT-3 |
| 1/2 | 46.7 | 22.2 | 19.1 | 19.1 | 11.9 | HN-S16-ISOT-4 |
| 3/4 | 46.7 | 27 | 19.1 | 19.1 | 15.7 | HN-S16-ISOT-5 |
| 1 | 58.9 | 34.9 | 23.9 | 23.9 | 22.4 | HN-S16-ISOT-6 |

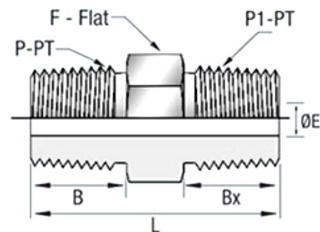


ISO Parallel



| Pipe Size P-PT,BSPP | Dimensions | | | | | SS 316 Part No. |
|------------------------|------------|----|----|----|------|-----------------|
| | L | F | B | BX | E | |
| 1/8 | 23.5 | 14 | 8 | 8 | 3.5 | HN-S16-ISOP-1 |
| 1/4 | 31.5 | 19 | 11 | 11 | 4.7 | HN-S16-ISOP-2 |
| 3/8 | 34.7 | 22 | 12 | 12 | 7.9 | HN-S16-ISOP-3 |
| 1/2 | 40.7 | 27 | 14 | 14 | 11.1 | HN-S16-ISOP-4 |
| 5/8 | 45.2 | 30 | 16 | 16 | 14.3 | HN-S16-ISOP-5 |
| 3/4 | 45.2 | 32 | 16 | 16 | 16.7 | HN-S16-ISOP-6 |
| 1 | 51.9 | 41 | 19 | 19 | 22.2 | HN-S16-ISOP-7 |
| 1 1/4 | 61.4 | 50 | 20 | 20 | 28.6 | HN-S16-ISOP-8 |
| 1 1/2 | 67.4 | 55 | 22 | 22 | 33.3 | HN-S16-ISOP-9 |
| 2 | 76.4 | 70 | 25 | 25 | 46 | HN-S16-ISOP-10 |

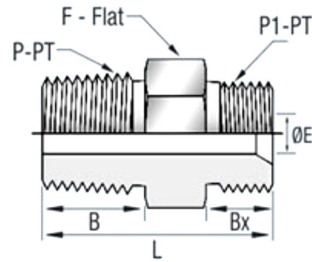
NPT X ISO Tapped



| Pipe Size | | Dimensions | | | | | SS 316 L Part No. |
|-----------|-------------|------------|------|------|------|------|-------------------|
| P-PT, NPT | P1-PT, BSPT | L | F | B | BX | E | |
| 1/8 | 1/8 | 25.6 | 11.1 | 9.7 | 9.7 | 4.8 | HN-16L-NPT-ISOT-1 |
| 1/4 | 1/4 | 35.6 | 14.3 | 14.2 | 14.2 | 7.1 | HN-16L-NPT-ISOT-2 |
| 3/8 | 3/8 | 36.3 | 17.5 | 14.2 | 14.2 | 9.7 | HN-16L-NPT-ISOT-3 |
| 1/2 | 1/2 | 46.7 | 22.2 | 19.1 | 19.1 | 11.9 | HN-16L-NPT-ISOT-4 |
| 3/4 | 3/4 | 46.7 | 27 | 19.1 | 19.1 | 15.7 | HN-16L-NPT-ISOT-5 |
| 1 | 1 | 58.9 | 34.9 | 23.9 | 23.9 | 22.4 | HN-16L-NPT-ISOT-6 |

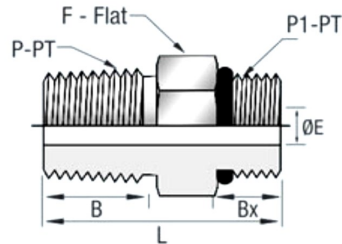


NPT X ISO Parallel



| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|-----------|-------------|------------|----|------|----|------|--------------------------|
| P-PT, NPT | P1-PT, BSPP | L | F | B | BX | E | |
| 1/8 | 1/8 | 24.4 | 14 | 9.7 | 8 | 3.5 | HN-S16-NPT-ISOP-1 |
| 1/4 | 1/4 | 33.4 | 19 | 14.2 | 11 | 4.7 | HN-S16-NPT-ISOP-2 |
| 3/8 | 3/8 | 35.1 | 22 | 14.2 | 12 | 7.9 | HN-S16-NPT-ISOP-3 |
| 1/2 | 1/2 | 43.4 | 22 | 19.1 | 14 | 11 | HN-S16-NPT-ISOP-4 |
| 3/4 | 3/4 | 45.9 | 30 | 19.1 | 16 | 16.7 | HN-S16-NPT-ISOP-5 |
| 1 | 1 | 54.5 | 41 | 23.9 | 19 | 22.2 | HN-S16-NPT-ISOP-6 |
| 1 1/4 | 1 1/4 | 63.7 | 50 | 23.9 | 20 | 28.6 | HN-S16-NPT-ISOP-7 |
| 1 1/2 | 1 1/2 | 68.5 | 55 | 26.2 | 22 | 33.3 | HN-S16-NPT-ISOP-8 |

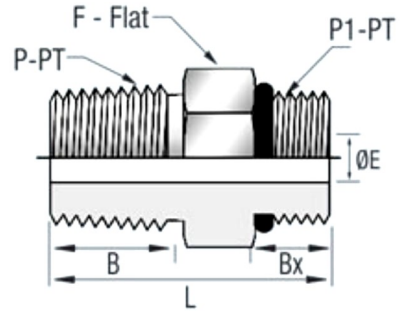
NPT X SAE / MS STRAIGHT



| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|-----------|------------|------------|------|------|------|------|-------------------------|
| P-PT, NPT | P1-PT, SAE | L | F | B | Bx | E | |
| 1/4 | 7/16-20 | 30.5 | 14.3 | 14.2 | 9.1 | 5.1 | HN-S16-NPT-SAE-1 |
| 3/8 | 9/16-18 | 32 | 17.5 | 14.2 | 9.1 | 7.1 | HN-S16-NPT-SAE-2 |
| 1/2 | 3/4"-16 | 38.9 | 22.2 | 19.1 | 11.2 | 10.7 | HN-S16-NPT-SAE-3 |
| 3/4 | 1-1/16-12 | 44.4 | 31.8 | 19.1 | 15 | 15.7 | HN-S16-NPT-SAE-4 |
| 1 | 1 5/16-12 | 50.8 | 38.1 | 23.9 | 15 | 22.4 | HN-S16-NPT-SAE-5 |



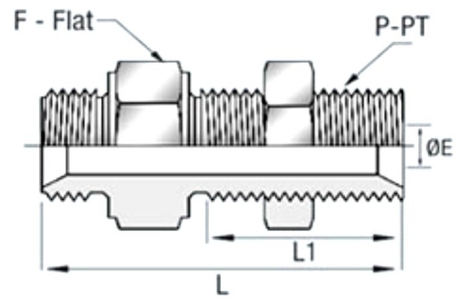
NPT X METRIC



| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|-----------|---------------|------------|------|------|----|------|------------------------|
| P-PT, NPT | P1-PT, Metric | L | F | B | Bx | E | |
| 1/4 | M8 x1 | 29 | 14.3 | 14.2 | 9 | 3.2 | HN-16L-NPT-M-1 |
| 1/4 | M14 x1.5 | 34.2 | 15.9 | 14.2 | 13 | 7 | HN-16L-NPT-M-2 |
| 1/4 | M16 x 1.5 | 35.2 | 17.5 | 14.2 | 14 | 7.1 | HN-16L-NPT-M-3 |
| 1/4 | M20 x 1.5 | 37.2 | 22.2 | 14.2 | 16 | 7.1 | HN-16L-NPT-M-4 |
| 3/8 | M14 x1.5 | 34.2 | 17.5 | 14.2 | 13 | 7 | HN-16L-NPT-M-5 |
| 3/8 | M20 x 1.5 | 37.2 | 22.2 | 14.2 | 16 | 9.5 | HN-16L-NPT-M-6 |
| 3/8 | M24 x 1.5 | 38.2 | 25.4 | 14.2 | 17 | 9.5 | HN-16L-NPT-M-7 |
| 1/2 | M14 x 1.5 | 39.1 | 22.2 | 19.1 | 13 | 7.2 | HN-16L-NPT-M-8 |
| 1/2 | M20 x 1.5 | 42 | 22.2 | 19.1 | 16 | 10 | HN-16L-NPT-M-9 |
| 1/2 | M24 x 1.5 | 43.5 | 25.4 | 19.1 | 17 | 11.9 | HN-16L-NPT-M-10 |
| 3/4 | M20 x 1.5 | 42.1 | 27 | 19.1 | 16 | 10.8 | HN-16L-NPT-M-11 |
| 3/4 | M27 x 2 | 46.7 | 38.8 | 19.1 | 18 | 15.8 | HN-16L-NPT-M-12 |
| 1 | M30 x 2 | 56.3 | 34.9 | 23.9 | 20 | 19.4 | HN-16L-NPT-M-13 |



ISO PARALLEL

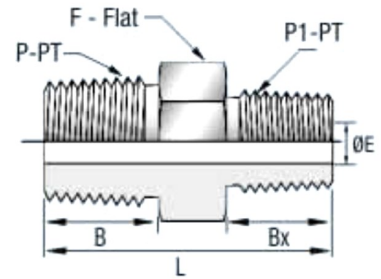


| Pipe Size | Dimensions | | | | SS 316 Part No. |
|------------|------------|----|----|------|----------------------|
| | L | L1 | F | E | |
| P-PT, BSPP | | | | | |
| 1/4 | 46.8 | 28 | 19 | 4.7 | BU-S16-ISOP-1 |
| 3/8 | 52.5 | 32 | 22 | 7.9 | BU-S16-ISOP-2 |
| 1/2 | 59 | 35 | 27 | 11.1 | BU-S16-ISOP-3 |
| 5/8 | 61.5 | 35 | 30 | 14.3 | BU-S16-ISOP-4 |
| 3/4 | 64.5 | 38 | 32 | 16.7 | BU-S16-ISOP-5 |
| 1 | 71.2 | 41 | 41 | 22.2 | BU-S16-ISOP-6 |
| 1 1/4 | 82.7 | 44 | 50 | 28.6 | BU-S16-ISOP-7 |
| 1 1/2 | 90.7 | 48 | 55 | 33.3 | BU-S16-ISOP-8 |



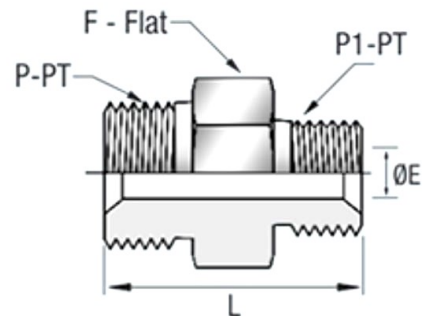
NPT THREAD

| Pipe Size | | Dimensions | | | | | SS 316 L Part No. |
|-----------|------------|------------|------|------|------|------|-------------------|
| P-PT, NPT | P1-PT, NPT | L | F | B | Bx | E | |
| 1/8 | 1/16 | 25.6 | 11.1 | 9.7 | 9.7 | 3 | HRN-NPT-1 |
| 1/4 | 1/16 | 31 | 14.3 | 14.2 | 9.7 | 3 | HRN-NPT-2 |
| 1/4 | 1/8 | 31 | 14.3 | 14.2 | 9.7 | 4.8 | HRN-NPT-3 |
| 3/8 | 1/16 | 31.8 | 17.5 | 14.2 | 9.7 | 3 | HRN-NPT-4 |
| 3/8 | 1/8 | 31.8 | 17.5 | 14.2 | 9.7 | 4.8 | HRN-NPT-5 |
| 3/8 | 1/4 | 36.3 | 17.5 | 14.2 | 14.2 | 7.1 | HRN-NPT-6 |
| 1/2 | 1/8 | 37.3 | 22.2 | 19.1 | 9.7 | 4.8 | HRN-NPT-7 |
| 1/2 | 1/4 | 41.9 | 22.2 | 19.1 | 14.2 | 7.1 | HRN-NPT-8 |
| 1/2 | 3/8 | 41.9 | 22.2 | 19.1 | 14.2 | 9.7 | HRN-NPT-9 |
| 3/4 | 1/8 | 40.4 | 27 | 19.1 | 9.7 | 4.8 | HRN-NPT-10 |
| 3/4 | 1/4 | 41.9 | 21 | 19.1 | 14.2 | 7.1 | HRN-NPT-11 |
| 3/4 | 3/8 | 45.2 | 27 | 19.1 | 14.2 | 9.7 | HRN-NPT-12 |
| 3/4 | 1/2 | 46.7 | 27 | 19.1 | 19.1 | 11.9 | HRN-NPT-13 |
| 1 | 1/8 | 45.2 | 34.9 | 23.9 | 9.7 | 4.8 | HRN-NPT-14 |
| 1 | 1/4 | 49.3 | 34.9 | 23.9 | 14.2 | 7.1 | HRN-NPT-15 |
| 1 | 3/8 | 50 | 34.9 | 23.9 | 14.2 | 9.7 | HRN-NPT-16 |
| 1 | 1/2 | 54.1 | 34.9 | 23.9 | 19.1 | 11.9 | HRN-NPT-17 |
| 1 | 3/4 | 54.1 | 34.9 | 23.9 | 19.1 | 15.7 | HRN-NPT-18 |
| 1-1/4 | 1 | 62.2 | 44.5 | 23.9 | 23.9 | 22.4 | HRN-NPT-19 |



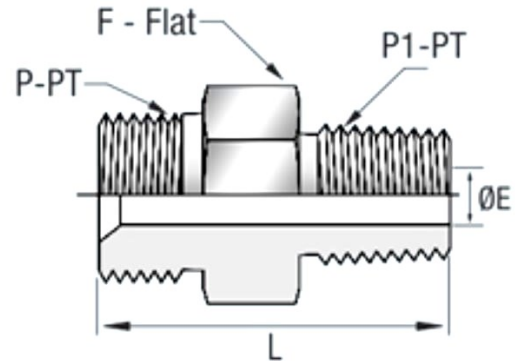
ISO PARALLEL

| Pipe Size | | Dimensions | | | SS 316 L Part No. |
|------------|-------------|------------|----|------|-------------------|
| P-PT, BSPP | P1-PT, BSPP | L | F | E | |
| 1/4 | 1/8 | 28 | 19 | 3.5 | HRN-16L-ISOP-1 |
| 3/8 | 1/4 | 33.2 | 22 | 4.7 | HRN-16L-ISOP-2 |
| 1/2 | 1/4 | 36.7 | 27 | 4.7 | HRN-16L-ISOP-3 |
| 1/2 | 3/8 | 38.2 | 27 | 7.9 | HRN-16L-ISOP-4 |
| 5/8 | 1/2 | 43.2 | 30 | 11.1 | HRN-16L-ISOP-5 |
| 3/4 | 1/4 | 39.2 | 32 | 4.7 | HRN-16L-ISOP-6 |
| 3/4 | 3/8 | 40.7 | 32 | 7.9 | HRN-16L-ISOP-7 |
| 3/4 | 1/2 | 43.2 | 32 | 11.1 | HRN-16L-ISOP-8 |
| 3/4 | 5/8 | 45.2 | 32 | 14.3 | HRN-16L-ISOP-9 |
| 1 | 1/2 | 46.9 | 41 | 11.1 | HRN-16L-ISOP-10 |
| 1 | 5/8 | 48.9 | 41 | 14.3 | HRN-16L-ISOP-11 |
| 1 | 3/4 | 48.9 | 41 | 16.7 | HRN-16L-ISOP-12 |
| 1 1/4 | 3/4 | 57.4 | 50 | 16.7 | HRN-16L-ISOP-13 |
| 1 1/4 | 1 | 60.4 | 50 | 22.2 | HRN-16L-ISOP-14 |
| 1 1/2 | 1 | 64.4 | 55 | 22.2 | HRN-16L-ISOP-15 |
| 1 1/2 | 1 1/4 | 65.4 | 55 | 28.6 | HRN-16L-ISOP-16 |
| 2 | 1 1/2 | 72.9 | 70 | 33.3 | HRN-16L-ISOP-17 |

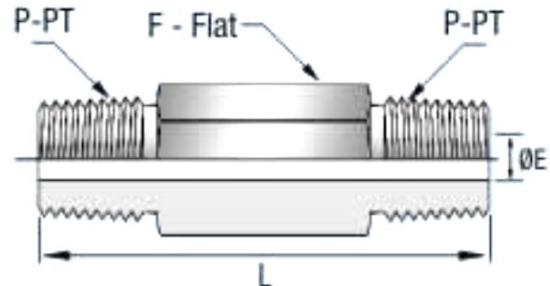




ISO PARALLEL X NPT



| Pipe Size | | Dimensions | | | SS 316 Part No. |
|------------|-------------|------------|----|------|----------------------------|
| P-PT, BSPP | P1-PT, BSPP | L | F | E | |
| 1/4 | 1/8 | 28 | 19 | 3.5 | HRN-S16-NPT-ISOP-1 |
| 3/8 | 1/4 | 33.2 | 22 | 4.7 | HRN-S16-NPT-ISOP-2 |
| 1/2 | 1/4 | 36.7 | 27 | 4.7 | HRN-S16-NPT-ISOP-3 |
| 1/2 | 3/8 | 38.2 | 27 | 7.9 | HRN-S16-NPT-ISOP-4 |
| 5/8 | 1/2 | 43.2 | 30 | 11.1 | HRN-S16-NPT-ISOP-5 |
| 3/4 | 1/4 | 39.2 | 32 | 4.7 | HRN-S16-NPT-ISOP-6 |
| 3/4 | 3/8 | 40.7 | 32 | 7.9 | HRN-S16-NPT-ISOP-7 |
| 3/4 | 1/2 | 43.2 | 32 | 11.1 | HRN-S16-NPT-ISOP-8 |
| 3/4 | 5/8 | 45.2 | 32 | 14.3 | HRN-S16-NPT-ISOP-9 |
| 1 | 1/2 | 46.9 | 41 | 11.1 | HRN-S16-NPT-ISOP-10 |
| 1 | 5/8 | 48.9 | 41 | 14.3 | HRN-S16-NPT-ISOP-11 |
| 1 | 3/4 | 48.9 | 41 | 16.7 | HRN-S16-NPT-ISOP-12 |
| 1 1/4 | 3/4 | 57.4 | 50 | 16.7 | HRN-S16-NPT-ISOP-13 |
| 1 1/4 | 1 | 60.4 | 50 | 22.2 | HRN-S16-NPT-ISOP-14 |
| 1 1/2 | 1 | 64.4 | 55 | 22.2 | HRN-S16-NPT-ISOP-15 |
| 1 1/2 | 1 1/4 | 65.4 | 55 | 28.6 | HRN-S16-NPT-ISOP-16 |
| 2 | 1 1/2 | 72.9 | 70 | 33.3 | HRN-S16-NPT-ISOP-17 |

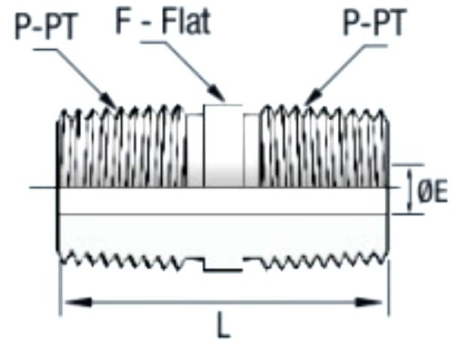


NPT THREAD

| Pipe Size P-PT, NPT | Dimensions | | | SS 316 Part No. |
|------------------------|------------|------|------|-----------------|
| | L | F | E | |
| 1/8 | 38.1 | 11.1 | 4.8 | HLN-NPT-S16-1 |
| 1/8 | 50.8 | 11.1 | 4.8 | HLN-NPT-S16-2 |
| 1/8 | 63.5 | 11.1 | 4.8 | HLN-NPT-S16-3 |
| 1/8 | 76.2 | 11.1 | 4.8 | HLN-NPT-S16-4 |
| 1/4 | 38.1 | 14.3 | 7.1 | HLN-NPT-S16-5 |
| 1/4 | 50.8 | 14.3 | 7.1 | HLN-NPT-S16-6 |
| 1/4 | 63.5 | 14.3 | 7.1 | HLN-NPT-S16-7 |
| 1/4 | 76.2 | 14.3 | 7.1 | HLN-NPT-S16-8 |
| 1/4 | 101.6 | 14.3 | 7.1 | HLN-NPT-S16-9 |
| 3/8 | 38.1 | 17.5 | 9.7 | HLN-NPT-S16-10 |
| 3/8 | 50.8 | 17.5 | 9.7 | HLN-NPT-S16-11 |
| 3/8 | 63.5 | 17.5 | 9.7 | HLN-NPT-S16-12 |
| 3/8 | 76.2 | 17.5 | 9.7 | HLN-NPT-S16-13 |
| 3/8 | 101.6 | 17.5 | 9.7 | HLN-NPT-S16-14 |
| 1/2 | 50.8 | 22.2 | 11.9 | HLN-NPT-S16-15 |
| 1/2 | 76.2 | 22.2 | 11.9 | HLN-NPT-S16-16 |
| 1/2 | 101.6 | 22.2 | 11.9 | HLN-NPT-S16-17 |
| 1/2 | 152.4 | 22.2 | 11.9 | HLN-NPT-S16-18 |
| 3/4 | 50.8 | 27 | 15.7 | HLN-NPT-S16-19 |
| 3/4 | 76.2 | 27 | 15.7 | HLN-NPT-S16-20 |
| 3/4 | 101.6 | 27 | 15.7 | HLN-NPT-S16-21 |
| 1 | 76.2 | 34.9 | 22.4 | HLN-NPT-S16-22 |
| 1 | 101.6 | 34.9 | 22.4 | HLN-NPT-S16-23 |

ISO TAPERED

| Pipe Size P-PT, BSPT | Dimensions | | | SS 316 Part No. |
|-------------------------|------------|------|------|-----------------|
| | L | F | E | |
| 1/8 | 38.1 | 11.1 | 4.8 | HLN-ISO-S16-1 |
| 1/8 | 50.8 | 11.1 | 4.8 | HLN-ISO-S16-2 |
| 1/8 | 63.5 | 11.1 | 4.8 | HLN-ISO-S16-3 |
| 1/8 | 76.2 | 11.1 | 4.8 | HLN-ISO-S16-4 |
| 1/4 | 38.1 | 14.3 | 7.1 | HLN-ISO-S16-5 |
| 1/4 | 50.8 | 14.3 | 7.1 | HLN-ISO-S16-6 |
| 1/4 | 63.5 | 14.3 | 7.1 | HLN-ISO-S16-7 |
| 1/4 | 76.2 | 14.3 | 7.1 | HLN-ISO-S16-8 |
| 1/4 | 101.6 | 14.3 | 7.1 | HLN-ISO-S16-9 |
| 3/8 | 38.1 | 17.5 | 9.7 | HLN-ISO-S16-10 |
| 3/8 | 50.8 | 17.5 | 9.7 | HLN-ISO-S16-11 |
| 3/8 | 63.5 | 17.5 | 9.7 | HLN-ISO-S16-12 |
| 3/8 | 76.2 | 17.5 | 9.7 | HLN-ISO-S16-13 |
| 3/8 | 101.6 | 17.5 | 9.7 | HLN-ISO-S16-14 |
| 1/2 | 50.8 | 22.2 | 11.9 | HLN-ISO-S16-15 |
| 1/2 | 76.2 | 22.2 | 11.9 | HLN-ISO-S16-16 |
| 1/2 | 101.6 | 22.2 | 11.9 | HLN-ISO-S16-17 |
| 1/2 | 152.4 | 22.2 | 11.9 | HLN-ISO-S16-18 |
| 3/4 | 50.8 | 27 | 15.7 | HLN-ISO-S16-19 |
| 3/4 | 76.2 | 27 | 15.7 | HLN-ISO-S16-20 |
| 3/4 | 101.6 | 27 | 15.7 | HLN-ISO-S16-21 |
| 1 | 76.2 | 34.9 | 22.4 | HLN-ISO-S16-22 |
| 1 | 101.6 | 34.9 | 22.4 | HLN-ISO-S16-23 |


NPT THREAD

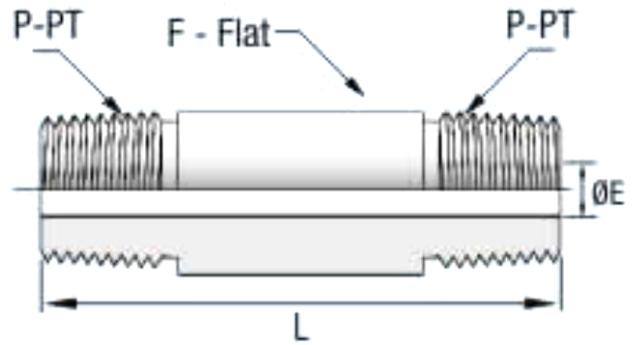
| Pipe Size | Dimensions | | | SS 316 Part No. |
|-----------|------------|------|------|-----------------|
| | L | F | E | |
| P-PT, NPT | | | | |
| 1/16 | 19.1 | 7.9 | 3 | CN-NPT-S16-1 |
| 1/8 | 19.1 | 10.3 | 4.8 | CN-NPT-S16-2 |
| 1/4 | 28.4 | 13.7 | 7.1 | CN-NPT-S16-3 |
| 3/8 | 28.4 | 17.1 | 9.6 | CN-NPT-S16-4 |
| 1/2 | 38.1 | 21.3 | 11.9 | CN-NPT-S16-5 |
| 3/4 | 38.1 | 26.7 | 15.7 | CN-NPT-S16-6 |
| 1 | 47.8 | 33.4 | 22.4 | CN-NPT-S16-7 |

ISO TAPERED

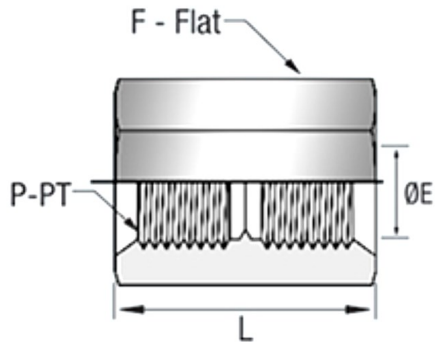
| Pipe Size | Dimensions | | | SS 316 Part No. |
|------------|------------|------|------|-----------------|
| | L | F | E | |
| P-PT, BSPT | | | | |
| 1/16 | 19.1 | 7.9 | 3 | CN-ISO-S16-1 |
| 1/8 | 19.1 | 10.3 | 4.8 | CN-ISO-S16-2 |
| 1/4 | 28.4 | 13.7 | 7.1 | CN-ISO-S16-3 |
| 3/8 | 28.4 | 17.1 | 9.7 | CN-ISO-S16-4 |
| 1/2 | 38.1 | 21.3 | 11.9 | CN-ISO-S16-5 |
| 3/4 | 38.1 | 26.7 | 15.7 | CN-ISO-S16-6 |
| 1 | 47.8 | 33.4 | 22.4 | CN-ISO-S16-7 |



NPT THREAD



| Pipe Size P-PT, NPT | Dimensions | | | SS 316 Part No. |
|------------------------|------------|------|------|-----------------|
| | L | F | E | |
| 1/8 | 38.1 | 10.3 | 4.8 | LPN-NPT-S16-1 |
| 1/8 | 50.8 | 10.3 | 4.8 | LPN-NPT-S16-2 |
| 1/8 | 63.5 | 10.3 | 4.8 | LPN-NPT-S16-3 |
| 1/8 | 76.2 | 10.3 | 4.8 | LPN-NPT-S16-4 |
| 1/4 | 38.1 | 13.7 | 7.1 | LPN-NPT-S16-5 |
| 1/4 | 50.8 | 13.7 | 7.1 | LPN-NPT-S16-6 |
| 1/4 | 63.5 | 13.7 | 7.1 | LPN-NPT-S16-7 |
| 1/4 | 76.2 | 13.7 | 7.1 | LPN-NPT-S16-8 |
| 1/4 | 101.6 | 13.7 | 7.1 | LPN-NPT-S16-9 |
| 3/8 | 38.1 | 17.1 | 9.7 | LPN-NPT-S16-10 |
| 3/8 | 50.8 | 17.1 | 9.7 | LPN-NPT-S16-11 |
| 3/8 | 63.5 | 17.1 | 9.7 | LPN-NPT-S16-12 |
| 3/8 | 76.2 | 17.1 | 9.7 | LPN-NPT-S16-13 |
| 3/8 | 101.6 | 17.1 | 9.7 | LPN-NPT-S16-14 |
| 1/2 | 50.8 | 21.3 | 11.9 | LPN-NPT-S16-15 |
| 1/2 | 76.2 | 21.3 | 11.9 | LPN-NPT-S16-16 |
| 1/2 | 101.6 | 21.3 | 11.9 | LPN-NPT-S16-17 |
| 1/2 | 152.4 | 21.3 | 11.9 | LPN-NPT-S16-18 |
| 3/4 | 50.8 | 26.7 | 15.7 | LPN-NPT-S16-19 |
| 3/4 | 76.2 | 26.7 | 15.7 | LPN-NPT-S16-20 |
| 3/4 | 101.6 | 26.7 | 15.7 | LPN-NPT-S16-21 |
| 1 | 76.2 | 33.4 | 22.4 | LPN-NPT-S16-22 |
| 1 | 101.6 | 33.4 | 22.4 | LPN-NPT-S16-23 |


NPT THREAD

| Pipe Size | Dimensions | | | SS 316 Part No. |
|-----------|------------|------|------|-----------------|
| P-PT, NPT | L | F | E | |
| 1/16 | 19.8 | 11.1 | 4.8 | HC-NPT-S16-1 |
| 1/8 | 20.6 | 14.3 | 8.6 | HC-NPT-S16-2 |
| 1/4 | 30.2 | 19.1 | 11.4 | HC-NPT-S16-3 |
| 3/8 | 33.3 | 22.2 | 15 | HC-NPT-S16-4 |
| 1/2 | 39.6 | 27 | 18.5 | HC-NPT-S16-5 |
| 3/4 | 41.1 | 33.3 | 23.9 | HC-NPT-S16-6 |
| 1 | 50.8 | 41.3 | 29.7 | HC-NPT-S16-7 |

ISO TAPERED

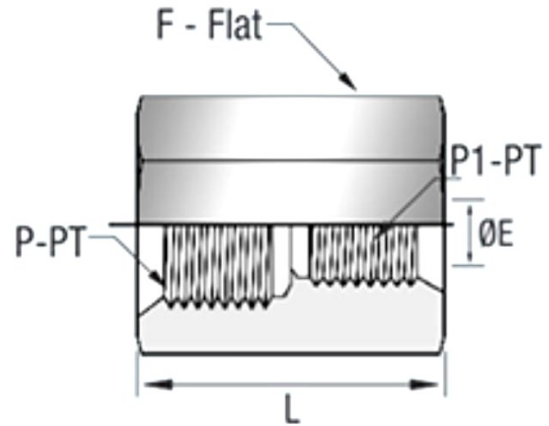
| Pipe Size | Dimensions | | | SS 316 Part No. |
|------------|------------|------|------|-----------------|
| P-PT, BSPT | L | F | E | |
| 1/8 | 20.6 | 14.3 | 8.4 | HC-ISO-S16-1 |
| 1/4 | 30.2 | 19.1 | 11.2 | HC-ISO-S16-2 |
| 3/8 | 33.3 | 22.2 | 14.7 | HC-ISO-S16-3 |
| 1/2 | 39.6 | 27 | 18.3 | HC-ISO-S16-4 |

ISO PARALLEL

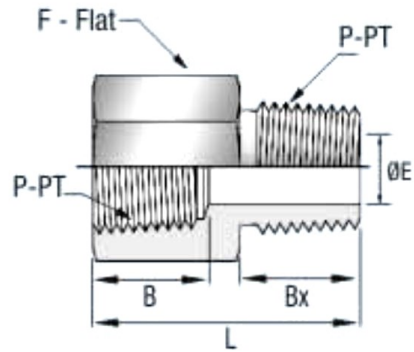
| Pipe Size | Dimensions | | | SS 316 Part No. |
|------------|------------|------|------|-----------------|
| P-PT, BSPP | L | F | E | |
| 1/16 | 19.8 | 11.1 | 4.8 | HC-ISO-P-S16-1 |
| 1/8 | 20.6 | 14.3 | 8.6 | HC-ISO-P-S16-2 |
| 1/4 | 30.2 | 19.1 | 11.4 | HC-ISO-P-S16-3 |
| 3/8 | 33.3 | 22.2 | 15 | HC-ISO-P-S16-4 |
| 1/2 | 39.6 | 27 | 18.5 | HC-ISO-P-S16-5 |
| 3/4 | 41.1 | 33.3 | 23.9 | HC-ISO-P-S16-6 |
| 1 | 50.8 | 41.3 | 29.7 | HC-ISO-P-S16-7 |



NPT THREAD



| Pipe Size | | Dimensions | | | SS 316 Part No. |
|-----------|------------|------------|------|------|----------------------|
| P-PT, NPT | P1-PT, NPT | L | F | E | |
| 1/4 | 1/8 | 31 | 19.1 | 8.6 | RHC-NPT-S16-1 |
| 3/8 | 1/4 | 35.1 | 22.2 | 11.4 | RHC-NPT-S16-2 |
| 1/2 | 1/8 | 39.6 | 27 | 8.6 | RHC-NPT-S16-3 |
| 1/2 | 1/4 | 44.4 | 27 | 11.4 | RHC-NPT-S16-4 |
| 1/2 | 3/8 | 45.2 | 27 | 15 | RHC-NPT-S16-5 |
| 3/4 | 1/4 | 46 | 33.3 | 11.4 | RHC-NPT-S16-6 |
| 3/4 | 1/2 | 52.3 | 33.3 | 18.5 | RHC-NPT-S16-7 |
| 1 | 1/2 | 55.6 | 41.3 | 18.5 | RHC-NPT-S16-8 |
| 1 | 3/4 | 57.2 | 41.3 | 23.9 | RHC-NPT-S16-9 |


NPT THREAD

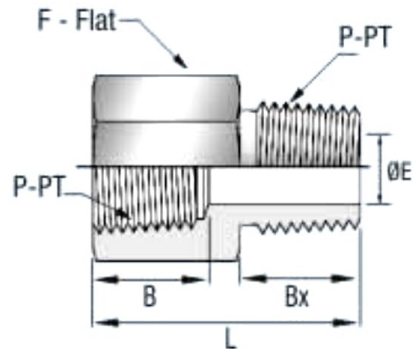
| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|-----------|------|------------|------|------|------|-------------|-----------------|
| P-PT, NPT | L | F | B | Bx | E | | |
| 1/8 | 27.9 | 14.3 | 10.4 | 9.7 | 4.8 | A-NPT-S16-1 | |
| 1/4 | 35.6 | 19.1 | 15 | 14.2 | 7.1 | A-NPT-S16-2 | |
| 3/8 | 38.4 | 22.2 | 15 | 14.2 | 9.6 | A-NPT-S16-3 | |
| 1/2 | 49.3 | 27 | 19.8 | 19.1 | 11.9 | A-NPT-S16-4 | |
| 3/4 | 51.3 | 33.3 | 20.6 | 19.1 | 15.7 | A-NPT-S16-5 | |
| 1 | 57.9 | 41.3 | 25.4 | 23.9 | 22.4 | A-NPT-S16-6 | |

NPT X ISO TAPERED

| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|-----------|-------------|------------|------|------|------|------|-----------------|
| P-PT, NPT | P1-PT, BSPT | L | F | B | Bx | E | |
| 1/8 | 1/8 | 27.7 | 14.3 | 10.4 | 9.7 | 4.8 | A-NPT-ISO-S16-1 |
| 1/4 | 1/4 | 36.1 | 19.1 | 15 | 14.2 | 7.1 | A-NPT-ISO-S16-2 |
| 3/8 | 3/8 | 38.1 | 22.2 | 15 | 14.2 | 9.6 | A-NPT-ISO-S16-3 |
| 1/2 | 1/2 | 49.3 | 27 | 19.8 | 19.1 | 11.9 | A-NPT-ISO-S16-4 |
| 3/4 | 3/4 | 51.3 | 33.3 | 20.6 | 19.1 | 15.7 | A-NPT-ISO-S16-5 |
| 1 | 1 | 58.4 | 41.3 | 25.4 | 23.9 | 22.4 | A-NPT-ISO-S16-6 |

NPT X ISO PARALLEL

| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|------------|-------------|------------|----|------|------|------|-------------------|
| P-PT, BSPP | P1-PT, BSPP | L | F | B | Bx | E | |
| 1/8 | 1/8 | 27.1 | 14 | 10.4 | 7.1 | 3.5 | A-NPT-ISO-P-S16-1 |
| 1/4 | 1/4 | 37.1 | 22 | 15 | 11.2 | 4.7 | A-NPT-ISO-P-S16-2 |
| 3/8 | 3/8 | 36.9 | 23 | 15 | 11.2 | 7.9 | A-NPT-ISO-P-S16-3 |
| 1/2 | 1/2 | 45.3 | 30 | 19.8 | 14.2 | 7.9 | A-NPT-ISO-P-S16-4 |
| 3/4 | 3/4 | 47.3 | 32 | 20.6 | 15.7 | 11.1 | A-NPT-ISO-P-S16-5 |
| 1 | 1 | 52.2 | 41 | 25.4 | 18.3 | 16.7 | A-NPT-ISO-P-S16-6 |


ISO PARALLEL

| Pipe Size | | | | | | | SS 316 Part No. |
|-----------|-------------|------|------|------|------|------|-----------------|
| P-PT, NPT | P1-PT, BSPP | L | F | B | Bx | E | |
| 1/8 | 1/8 | 25.1 | 14.3 | 9.9 | 7.1 | 4.1 | A-ISO-P-S16-1 |
| 1/4 | 1/4 | 33.5 | 19.1 | 10.4 | 11.2 | 5.8 | A-ISO-P-S16-2 |
| 3/8 | 3/8 | 35.8 | 22.2 | 15 | 11.2 | 7.9 | A-ISO-P-S16-3 |
| 1/2 | 1/2 | 44.2 | 27 | 15 | 14.2 | 11.9 | A-ISO-P-S16-4 |
| 3/4 | 3/4 | 48 | 33.3 | 20.6 | 15.7 | 15.7 | A-ISO-P-S16-5 |
| 1 | 1 | 53.3 | 41.3 | 25.4 | 18.3 | 19.8 | A-ISO-P-S16-6 |

ISO TAPERED

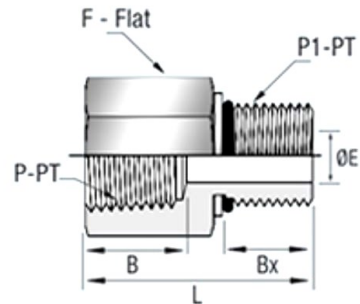
| Pipe Size | Dimensions | | | | | SS 316 Part No. |
|------------|------------|------|------|------|------|-----------------|
| P-PT, BSPT | L | F | B | Bx | E | |
| 1/8 | 27.7 | 14.3 | 10.4 | 9.7 | 4.8 | A-ISO-T-S16-1 |
| 1/4 | 36.1 | 19.1 | 15 | 14.2 | 7.1 | A-ISO-T-S16-2 |
| 3/8 | 38.1 | 22.2 | 15 | 14.2 | 9.7 | A-ISO-T-S16-3 |
| 1/2 | 49.5 | 27 | 19.8 | 19.1 | 11.9 | A-ISO-T-S16-4 |
| 3/4 | 51.3 | 33.3 | 20.6 | 19.1 | 15.7 | A-ISO-T-S16-5 |
| 1 | 58.4 | 41.3 | 25.4 | 23.9 | 22.4 | A-ISO-T-S16-6 |

ISO TAPERED X NPT

| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|------------|------------|------------|------|------|------|------|-------------------|
| P-PT, BSPT | P1-PT, NPT | L | F | B | Bx | E | |
| 1/8 | 1/8 | 27.7 | 14.3 | 10.4 | 9.7 | 4.8 | A-ISO-T-NPT-S16-1 |
| 1/4 | 1/4 | 36.3 | 19.1 | 15 | 14.2 | 7.1 | A-ISO-T-NPT-S16-2 |
| 3/8 | 3/8 | 38.4 | 22.2 | 15 | 14.2 | 9.6 | A-ISO-T-NPT-S16-3 |
| 1/2 | 1/2 | 49.8 | 27 | 19.8 | 19.1 | 11.9 | A-ISO-T-NPT-S16-4 |
| 3/4 | 3/4 | 51.3 | 33.3 | 20.6 | 19.1 | 15.7 | A-ISO-T-NPT-S16-5 |
| 1 | 1 | 58.4 | 41.3 | 25.4 | 23.9 | 22.4 | A-ISO-T-NPT-S16-6 |

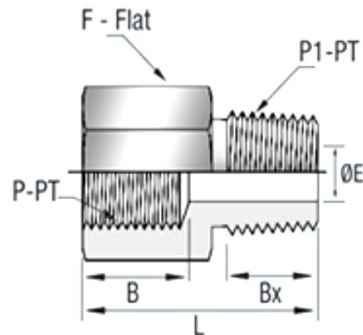


NPT X SAE MS STRAIGHT

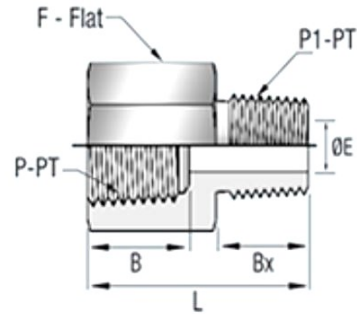


| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|-----------|------------|------------|------|------|------|------|-------------------|
| P-PT, NPT | P1-PT, SAE | L | F | B | Bx | E | |
| 1/4 | 44028 | 33.5 | 19.1 | 15 | 9.1 | 5.1 | A-NPT-SAE-S-S16-1 |
| 3/8 | 43359 | 35.3 | 23.8 | 15 | 9.9 | 7.1 | A-NPT-SAE-S-S16-2 |
| 1/2 | 42433 | 44.7 | 27 | 19.8 | 11.2 | 10.7 | A-NPT-SAE-S-S16-3 |
| 3/4 | 41229 | 50.5 | 34.9 | 20.6 | 15 | 16.8 | A-NPT-SAE-S-S16-4 |
| 1 | 1 5/16-12 | 53.8 | 41.3 | 25.4 | 15 | 21.5 | A-NPT-SAE-S-S16-5 |

ISO PARALLEL X NPT



| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|------------|------------|------------|------|------|------|-----|-------------------|
| P-PT, BSPP | P1-PT, NPT | L | F | B | Bx | E | |
| 1/8" | 1/8" | 21.8 | 14.3 | 6.5 | 9.7 | 4.5 | A-ISO-P-NPT-S16-1 |
| 1/4" | 1/4" | 30.2 | 19.1 | 12.9 | 14.2 | 5.5 | A-ISO-P-NPT-S16-2 |
| 3/8" | 3/8" | 32.2 | 23.8 | 14.2 | 14.2 | 6.5 | A-ISO-P-NPT-S16-3 |
| 1/2" | 1/2" | 42.7 | 27 | 18.8 | 19.1 | 7 | A-ISO-P-NPT-S16-4 |



ISO TAPERED

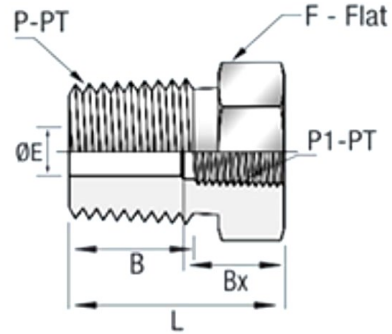
| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|------------|-------------|------------|------|------|------|-----|--------------------|
| P-PT, BSPT | P1-PT, BSPT | L | F | B | Bx | E | |
| 1/4 | 1/8 | 32 | 19.1 | 15 | 9.7 | 4.8 | RA-ISO-T-BSP-S16-1 |
| 3/8 | 1/4 | 38.1 | 22.2 | 15 | 14.2 | 7.1 | RA-ISO-T-BSP-S16-2 |
| 1/2 | 1/4 | 44.7 | 27 | 19.8 | 14.2 | 7.1 | RA-ISO-T-BSP-S16-3 |
| 1/2 | 3/8 | 44.4 | 27 | 19.8 | 14.2 | 9.7 | RA-ISO-T-BSP-S16-4 |

NPT THREAD

| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|-----------|------------|------------|------|------|------|------|-----------------|
| P-PT, NPT | P1-PT, NPT | L | F | B | BX | E | |
| 1/8 | 1/16 | 27.7 | 14.3 | 10.4 | 9.7 | 3 | RA-NPT-S16-1 |
| 1/4 | 1/16 | 30.5 | 19.1 | 15 | 9.7 | 3 | RA-NPT-S16-2 |
| 1/4 | 1/8 | 32 | 19.1 | 15 | 9.7 | 4.8 | RA-NPT-S16-3 |
| 3/8 | 1/16 | 31.8 | 22.2 | 15 | 9.7 | 3 | RA-NPT-S16-4 |
| 3/8 | 1/8 | 33.8 | 22.2 | 15 | 9.7 | 4.8 | RA-NPT-S16-5 |
| 3/8 | 1/4 | 38.1 | 22.2 | 15 | 14.2 | 7.1 | RA-NPT-S16-6 |
| 1/2 | 1/8 | 40 | 27 | 19.8 | 9.7 | 4.8 | RA-NPT-S16-7 |
| 1/2 | 1/4 | 44.7 | 27 | 19.8 | 14.2 | 7.1 | RA-NPT-S16-8 |
| 1/2 | 3/8 | 44.4 | 27 | 19.8 | 14.2 | 9.6 | RA-NPT-S16-9 |
| 3/4 | 1/8 | 39.6 | 33.3 | 20.6 | 9.7 | 4.8 | RA-NPT-S16-10 |
| 3/4 | 1/4 | 47 | 33.3 | 20.6 | 14.2 | 7.1 | RA-NPT-S16-11 |
| 3/4 | 3/8 | 46.2 | 33.3 | 20.6 | 14.2 | 9.6 | RA-NPT-S16-12 |
| 3/4 | 1/2 | 51.3 | 33.3 | 20.6 | 19.1 | 11.9 | RA-NPT-S16-13 |
| 1 | 1/8 | 46 | 41.3 | 25.4 | 9.7 | 4.8 | RA-NPT-S16-14 |
| 1 | 1/4 | 49.8 | 41.3 | 25.4 | 14.2 | 7.1 | RA-NPT-S16-15 |
| 1 | 3/8 | 50.8 | 41.3 | 25.4 | 14.2 | 9.6 | RA-NPT-S16-16 |
| 1 | 1/2 | 54.9 | 41.3 | 25.4 | 19.1 | 11.9 | RA-NPT-S16-17 |
| 1 | 3/4 | 55.1 | 41.3 | 25.4 | 19.1 | 15.7 | RA-NPT-S16-18 |
| 1.25 | 1 | 62.7 | 54 | 25.4 | 23.9 | 22.4 | RA-NPT-S16-19 |

ISO PARALLEL

| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|------------|-------------|------------|----|------|----|------|-----------------|
| P-PT, BSPP | P1-PT, BSPP | L | F | B | BX | E | |
| 3/8 | 1/4 | 37.1 | 22 | 15 | 11 | 4.7 | RA-ISO-P-S16-1 |
| 1/2 | 1/4 | 38 | 27 | 19.8 | 11 | 4.7 | RA-ISO-P-S16-2 |
| 1/2 | 3/8 | 45.3 | 30 | 19.8 | 12 | 7.9 | RA-ISO-P-S16-3 |
| 3/4 | 1/4 | 40 | 32 | 20.6 | 11 | 4.7 | RA-ISO-P-S16-4 |
| 3/4 | 3/8 | 41.6 | 32 | 20.6 | 12 | 7.9 | RA-ISO-P-S16-5 |
| 3/4 | 1/2 | 47.3 | 32 | 20.6 | 14 | 11.1 | RA-ISO-P-S16-6 |
| 1 | 1/4 | 43 | 41 | 25.4 | 11 | 4.7 | RA-ISO-P-S16-7 |
| 1 | 3/8 | 44.6 | 41 | 25.4 | 12 | 7.9 | RA-ISO-P-S16-8 |
| 1 | 1/2 | 50.3 | 41 | 25.4 | 14 | 11.1 | RA-ISO-P-S16-9 |
| 1 | 3/4 | 52.2 | 41 | 25.4 | 16 | 16.7 | RA-ISO-P-S16-10 |



NPT THREAD

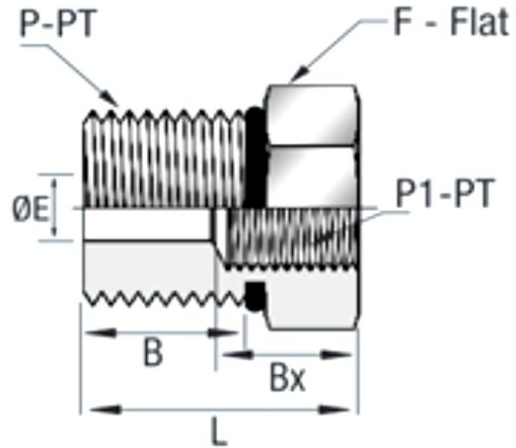
| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|-----------|------------|------------|------|------|------|------|----------------------|
| P-PT, NPT | P1-PT, NPT | L | F | B | Bx | E | |
| 1/8 | 1/16 | 26.2 | 11.1 | 9.7 | 9.9 | 4.8 | RB-NPT-S16-1 |
| 1/4 | 1/16 | 21.8 | 14.3 | 14.2 | 9.9 | 4.8 | RB-NPT-S16-2 |
| 1/4 | 1/8 | 26.9 | 14.3 | 14.2 | 10.4 | 7.1 | RB-NPT-S16-3 |
| 3/8 | 1/16 | 21.8 | 17.5 | 14.2 | 9.9 | 4.8 | RB-NPT-S16-4 |
| 3/8 | 1/8 | 21.8 | 17.5 | 14.2 | 10.4 | 7.1 | RB-NPT-S16-5 |
| 3/8 | 1/4 | 30.2 | 19.1 | 14.2 | 15 | 9.7 | RB-NPT-S16-6 |
| 1/2 | 1/8 | 27.4 | 22.2 | 19.1 | 10.4 | 7.1 | RB-NPT-S16-7 |
| 1/2 | 1/4 | 27.4 | 22.2 | 19.1 | 15 | 10.4 | RB-NPT-S16-8 |
| 1/2 | 3/8 | 35.8 | 22.2 | 19.1 | 15 | 11.9 | RB-NPT-S16-9 |
| 3/4 | 1/8 | 27.4 | 27 | 19.1 | 10.4 | 7.1 | RB-NPT-S16-10 |
| 3/4 | 1/4 | 27.4 | 27 | 19.1 | 15 | 10.4 | RB-NPT-S16-11 |
| 3/4 | 3/8 | 27.4 | 27 | 19.1 | 15 | 12.7 | RB-NPT-S16-12 |
| 3/4 | 1/2 | 41.4 | 27 | 19.1 | 19.8 | 15.7 | RB-NPT-S16-13 |
| 1 | 1/8 | 34.5 | 34.9 | 23.9 | 10.4 | 7.1 | RB-NPT-S16-14 |
| 1 | 1/4 | 34.8 | 34.9 | 23.9 | 15 | 10.4 | RB-NPT-S16-15 |
| 1 | 3/8 | 34.8 | 34.9 | 23.9 | 15 | 12.7 | RB-NPT-S16-16 |
| 1 | 1/2 | 34.8 | 34.9 | 23.9 | 19.8 | 15.7 | RB-NPT-S16-17 |
| 1 | 3/4 | 47 | 34.9 | 23.9 | 20.6 | 22.4 | RB-NPT-S16-18 |

NPT X ISO TAPERED

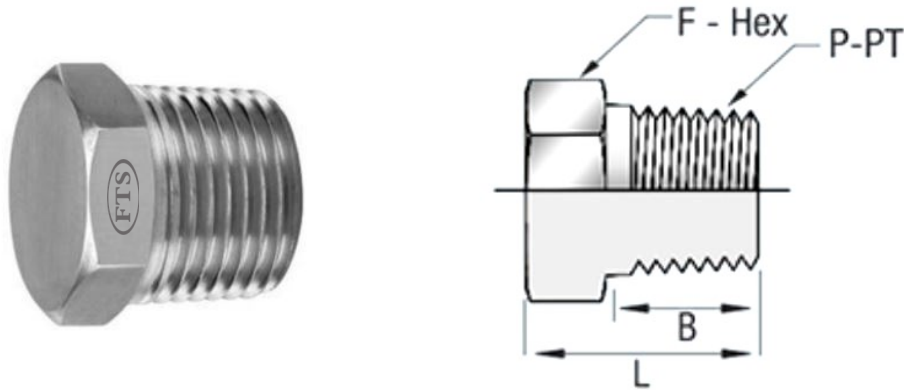
| Tapered Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|-------------------|--------|------------|------|------|------|------|----------------------------|
| P-PT, NPT | P1-PT, | L | F | B | BX | E | |
| 1/8 | 1/16 | 26.2 | 11.1 | 9.7 | 9.9 | 4.8 | RB-NPT-ISO-T-S16-1 |
| 1/4 | 1/16 | 21.8 | 14.3 | 14.2 | 9.9 | 4.8 | RB-NPT-ISO-T-S16-2 |
| 1/4 | 1/8 | 26.9 | 14.3 | 14.2 | 10.4 | 7.1 | RB-NPT-ISO-T-S16-3 |
| 3/8 | 1/16 | 21.8 | 17.5 | 14.2 | 9.9 | 4.8 | RB-NPT-ISO-T-S16-4 |
| 3/8 | 1/8 | 21.8 | 17.5 | 14.2 | 10.4 | 7.1 | RB-NPT-ISO-T-S16-5 |
| 3/8 | 1/4 | 30.2 | 19.1 | 14.2 | 15 | 9.7 | RB-NPT-ISO-T-S16-6 |
| 1/2 | 1/8 | 27.4 | 22.2 | 19.1 | 10.4 | 7.1 | RB-NPT-ISO-T-S16-7 |
| 1/2 | 1/4 | 27.4 | 22.2 | 19.1 | 15 | 10.4 | RB-NPT-ISO-T-S16-8 |
| 1/2 | 3/8 | 35.8 | 22.2 | 19.1 | 15 | 11.9 | RB-NPT-ISO-T-S16-9 |
| 3/4 | 1/8 | 27.4 | 27 | 19.1 | 10.4 | 7.1 | RB-NPT-ISO-T-S16-10 |
| 3/4 | 1/4 | 27.4 | 27 | 19.1 | 15 | 10.4 | RB-NPT-ISO-T-S16-11 |
| 3/4 | 3/8 | 27.4 | 27 | 19.1 | 15 | 12.7 | RB-NPT-ISO-T-S16-12 |
| 3/4 | 1/2 | 41.4 | 27 | 19.1 | 19.8 | 15.7 | RB-NPT-ISO-T-S16-13 |
| 1 | 1/8 | 34.5 | 34.9 | 23.9 | 10.4 | 7.1 | RB-NPT-ISO-T-S16-14 |
| 1 | 1/4 | 34.8 | 34.9 | 23.9 | 15 | 10.4 | RB-NPT-ISO-T-S16-15 |
| 1 | 3/8 | 34.8 | 34.9 | 23.9 | 15 | 12.7 | RB-NPT-ISO-T-S16-16 |
| 1 | 1/2 | 34.8 | 34.9 | 23.9 | 19.8 | 15.7 | RB-NPT-ISO-T-S16-17 |
| 1 | 3/4 | 47 | 34.9 | 23.9 | 20.6 | 22.4 | RB-NPT-ISO-T-S16-18 |



SAE MS STRAIGHT



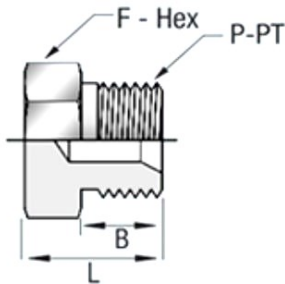
| Pipe Size | | Dimensions | | | | | SS 316 Part No. |
|-----------|------------|------------|------|------|----|------|-----------------------|
| P-PT, SAE | P1-PT, SAE | L | F | B | Bx | E | |
| 9/16-18 | 7/16-20 | 28.4 | 20.6 | 9.9 | 14 | 7.1 | RB-SAE-S-S16-1 |
| 3/4-16 | 7/16-20 | 24.9 | 22.2 | 11.2 | 14 | 9.9 | RB-SAE-S-S16-2 |
| 3/4-16 | 9/16-18 | 30.2 | 25.4 | 11.2 | 16 | 10.7 | RB-SAE-S-S16-3 |
| 7/8-14 | 9/16-18 | 27.9 | 25.4 | 12.7 | 16 | 12.7 | RB-SAE-S-S16-4 |
| 7/8-14 | 3/4-16 | 36.1 | 30.2 | 12.7 | 18 | 12.7 | RB-SAE-S-S16-5 |
| 1-1/16-12 | 3/4-16 | 32.3 | 31.8 | 15 | 18 | 16.5 | RB-SAE-S-S16-6 |
| 1 5/16-12 | 1-1/16-12 | 40.9 | 41.3 | 15 | 24 | 22.1 | RB-SAE-S-S16-7 |
| 1 5/8-12 | 1 5/16-12 | 50.3 | 54 | 15 | 24 | 27.7 | RB-SAE-S-S16-8 |
| 1 7/8-12 | 1 5/16-12 | 50.3 | 54 | 15 | 24 | 31.2 | RB-SAE-S-S16-9 |


NPT THREAD

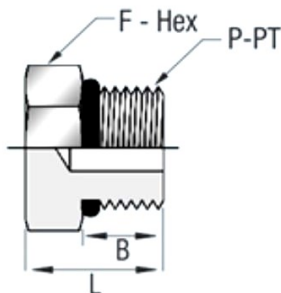
| Pipe Size P-PT, NPT | Dimensions | | | SS 316 Part No. |
|------------------------|------------|------|------|-----------------|
| | L | F | B | |
| 1/16 | 14.2 | 7.9 | 9.7 | HP-NPT-S16-1 |
| 1/8 | 14.2 | 11.1 | 9.7 | HP-NPT-S16-2 |
| 1/4 | 19.1 | 14.3 | 14.2 | HP-NPT-S16-3 |
| 3/8 | 19.8 | 17.5 | 14.2 | HP-NPT-S16-4 |
| 1/2 | 24.6 | 22.2 | 19.1 | HP-NPT-S16-5 |
| 3/4 | 30.7 | 27 | 19.1 | HP-NPT-S16-6 |
| 1 | 38.1 | 34.9 | 23.9 | HP-NPT-S16-7 |
| 1 1/4 | 38.4 | 44.5 | 23.9 | HP-NPT-S16-8 |
| 1 1/2 | 43.7 | 50.8 | 26.2 | HP-NPT-S16-9 |
| 2 | 50.8 | 69.9 | 26.2 | HP-NPT-S16-10 |

ISO TAPERED

| Pipe Size P-PT, BSPT | Dimensions | | | SS 316 Part No. |
|-------------------------|------------|------|------|-----------------|
| | L | F | B | |
| 1/16 | 14.2 | 7.9 | 9.7 | HP-ISO-T-S16-1 |
| 1/8 | 14.2 | 11.1 | 9.7 | HP-ISO-T-S16-2 |
| 1/4 | 19.1 | 14.3 | 14.2 | HP-ISO-T-S16-3 |
| 3/8 | 19.8 | 17.5 | 14.2 | HP-ISO-T-S16-4 |
| 1/2 | 24.6 | 22.2 | 19.1 | HP-ISO-T-S16-5 |
| 3/4 | 30.7 | 27 | 19.1 | HP-ISO-T-S16-6 |
| 1 | 38.1 | 34.9 | 23.9 | HP-ISO-T-S16-7 |
| 1 1/4 | 38.4 | 44.5 | 23.9 | HP-ISO-T-S16-8 |
| 1 1/2 | 43.7 | 50.8 | 26.2 | HP-ISO-T-S16-9 |
| 2 | 50.8 | 69.9 | 26.2 | HP-ISO-T-S16-10 |

ISO PARALLEL


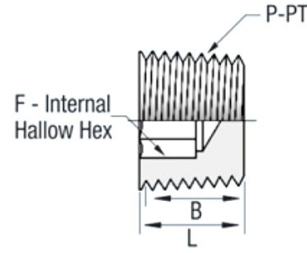
| Pipe Size | Dimensions | | | SS 316 Part No. | |
|-----------|------------|------|----|-----------------|-----------------|
| | P-PT, BSPP | L | F | | B |
| 1/8 | | 14.3 | 14 | 8 | HP-ISO-P-S16-1 |
| 1/4 | | 18.8 | 19 | 11 | HP-ISO-P-S16-2 |
| 3/8 | | 20.5 | 22 | 12 | HP-ISO-P-S16-3 |
| 1/2 | | 24 | 27 | 14 | HP-ISO-P-S16-4 |
| 5/8 | | 24 | 30 | 16 | HP-ISO-P-S16-5 |
| 3/4 | | 26.5 | 32 | 16 | HP-ISO-P-S16-6 |
| 1 | | 30.2 | 41 | 19 | HP-ISO-P-S16-7 |
| 1 1/4 | | 38.7 | 50 | 20 | HP-ISO-P-S16-8 |
| 1 1/2 | | 42.7 | 55 | 22 | HP-ISO-P-S16-9 |
| 2 | | 48.2 | 70 | 25 | HP-ISO-P-S16-10 |

SAE MS STRAIGHT


| Pipe Size | Dimensions | | | SS 316 Part No. | |
|------------|------------|------|------|-----------------|-------------------|
| | P-PT, SAE | L | F | | B |
| 7/16-20 | | 19.3 | 14.3 | 9.1 | HP-SAE-MS-S-S16-1 |
| 9/16-18 | | 20.8 | 17.5 | 9.9 | HP-SAE-MS-S-S16-2 |
| 04-03-2016 | | 22.6 | 22.2 | 11.2 | HP-SAE-MS-S-S16-3 |
| 16-11-2012 | | 28.4 | 31.8 | 15 | HP-SAE-MS-S-S16-4 |
| 1 5/16-12 | | 30 | 38.1 | 15 | HP-SAE-MS-S-S16-5 |

METRIC

| Pipe Size | Dimensions | | | SS 316 Part No. | |
|-----------|--------------|------|------|-----------------|------------|
| | P-PT, Metric | L | F | | B |
| M14 x 1.5 | | 21 | 20.6 | 12 | HP-M-S16-1 |
| M16 X1.5 | | 23 | 22.2 | 12 | HP-M-S16-2 |
| M18 X 1.5 | | 25 | 23.8 | 12 | HP-M-S16-3 |
| M20 X 1.5 | | 26.5 | 25.4 | 14 | HP-M-S16-4 |
| M22 X 1.5 | | 28.8 | 28.6 | 14 | HP-M-S16-5 |
| M24 X 1.5 | | 29 | 35 | 14 | HP-M-S16-6 |
| M27 X 2 | | 30 | 36.5 | 16 | HP-M-S16-7 |

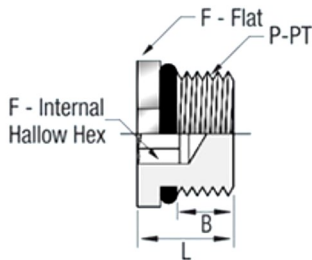


NPT THREAD

| Pipe Size P-PT, NPT | Dimensions | | | SS 316 Part No. |
|------------------------|------------|------|------|-----------------|
| | L | F | B | |
| 1/16 | 7.6 | 4 | 7.4 | HHP-NPT-S16-1 |
| 1/8 | 10.4 | 4.8 | 7.4 | HHP-NPT-S16-2 |
| 1/4 | 15.5 | 6.4 | 12.4 | HHP-NPT-S16-3 |
| 3/8 | 15 | 7.9 | 11.9 | HHP-NPT-S16-4 |
| 1/2 | 19.3 | 9.5 | 16.2 | HHP-NPT-S16-5 |
| 3/4 | 19.8 | 14.3 | 16.7 | HHP-NPT-S16-6 |
| 1 | 20.8 | 15.9 | 17.7 | HHP-NPT-S16-7 |

ISO TAPERED

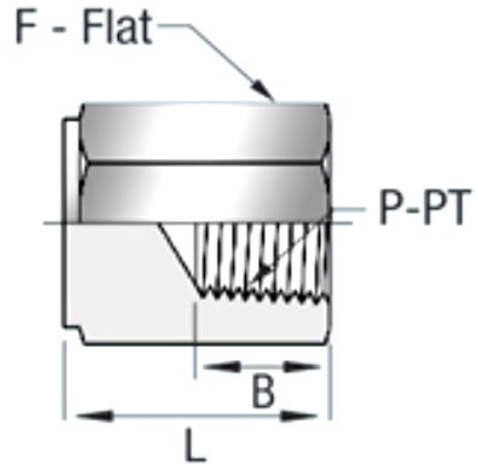
| Pipe Size P-PT, BSPT | Dimensions | | | SS 316 Part No. |
|-------------------------|------------|------|------|-----------------|
| | L | F | B | |
| 1/16 | 7.6 | 4 | 7.4 | HHP-ISO-T-S16-1 |
| 1/8 | 10.4 | 4.8 | 7.4 | HHP-ISO-T-S16-2 |
| 1/4 | 15.5 | 6.4 | 12.4 | HHP-ISO-T-S16-3 |
| 3/8 | 15.5 | 7.9 | 12.4 | HHP-ISO-T-S16-4 |
| 1/2 | 19.3 | 9.5 | 16.2 | HHP-ISO-T-S16-5 |
| 3/4 | 19.8 | 14.3 | 16.7 | HHP-ISO-T-S16-6 |
| 1 | 20.8 | 15.9 | 17.7 | HHP-ISO-T-S16-7 |



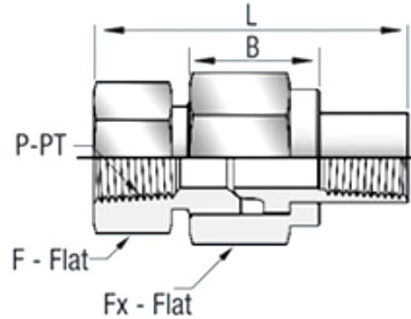
SAE MS STRAIGHT

| Pipe Size P-PT, SAE | Dimensions | | | SS 316 Part No. |
|------------------------|------------|------|------|-----------------|
| | L | F | Be | |
| 7/16-20 | 11.4 | 14.2 | 9.1 | HHP-SAE-S-S16-1 |
| 9/16-18 | 12.2 | 17.5 | 9.9 | HHP-SAE-S-S16-2 |
| 3/4"-16 | 14.2 | 22.4 | 11.2 | HHP-SAE-S-S16-3 |
| 1-1/16-12 | 19.1 | 31.8 | 15 | HHP-SAE-S-S16-4 |
| 1 5/16-12 | 19.1 | 38.1 | 15 | HHP-SAE-S-S16-5 |

NPT THREAD



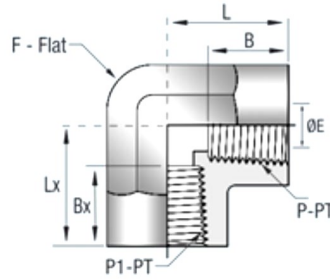
| Pipe Size | Dimensions | | | SS 316 Part No. |
|-----------|------------|------|------|-----------------|
| | P-PT, NPT | L | F | |
| 1/16 | 12.7 | 11.1 | 9.9 | PC-NPT-S16-1 |
| 1/8 | 19.1 | 14.3 | 10.4 | PC-NPT-S16-2 |
| 1/4 | 23.1 | 19.1 | 15 | PC-NPT-S16-3 |
| 3/8 | 26.2 | 22.2 | 15 | PC-NPT-S16-4 |
| 1/2 | 34 | 27 | 19.8 | PC-NPT-S16-5 |
| 3/4 | 36.6 | 33.3 | 20.6 | PC-NPT-S16-6 |
| 1 | 41.1 | 41.3 | 25.4 | PC-NPT-S16-7 |


NPT THREAD

| Pipe Size | Dimensions | | | | | SS 316 Part No. |
|-----------|------------|------|------|------|------|-----------------|
| P-PT, NPT | L | F | Fx | B | E | |
| 1/8 | 46 | 23.8 | 28.6 | 10.4 | 6.8 | U-NPT-S16-1 |
| 1/4 | 59.4 | 30.2 | 34.9 | 15 | 9.1 | U-NPT-S16-2 |
| 3/8 | 63.5 | 33.3 | 38.1 | 15 | 13.2 | U-NPT-S16-3 |
| 1/2 | 68.3 | 41.3 | 44.5 | 19.8 | 15.7 | U-NPT-S16-4 |
| 3/4 | 79.2 | 47.6 | 54 | 20.6 | 22.4 | U-NPT-S16-5 |
| 1 | 90.4 | 60.3 | 63.5 | 25.4 | 26.2 | U-NPT-S16-6 |

ISO TAPERED

| Pipe Size | Dimensions | | | | | SS 316 Part No. |
|------------|------------|------|------|------|------|-----------------|
| P-PT, BSPT | L | F | Fx | B | E | |
| 1/8 | 46 | 23.8 | 28.6 | 10.4 | 6.8 | U-ISO-T-S16-1 |
| 1/4 | 59.4 | 30.2 | 34.9 | 15 | 9.1 | U-ISO-T-S16-2 |
| 3/8 | 63.5 | 33.3 | 38.1 | 15 | 13.2 | U-ISO-T-S16-3 |
| 1/2 | 68.3 | 41.3 | 44.5 | 19.8 | 15.7 | U-ISO-T-S16-4 |
| 3/4 | 79.2 | 47.6 | 54 | 20.6 | 22.4 | U-ISO-T-S16-5 |
| 1 | 90.4 | 60.3 | 63.5 | 25.4 | 26.2 | U-ISO-T-S16-6 |



NPT THREAD

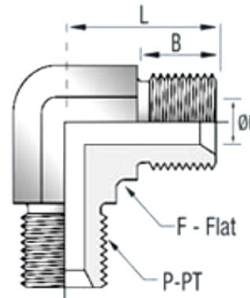
| Pipe Size | | Dimensions | | | | | | SS 316 Part No. |
|-----------|------------|------------|------|------|------|------|------|-----------------|
| P-PT, NPT | P1-PT, NPT | L | F | B | E | LX | Bx | |
| 1/16 | 1/16 | 21.8 | 11.1 | 9.9 | 4.8 | 21.8 | 9.9 | FE-NPT-T-S16-1 |
| 1/8 | 1/16 | 26.4 | 12.7 | 10.4 | 4.8 | 26.4 | 9.9 | FE-NPT-T-S16-2 |
| 1/8 | 1/8 | 26.4 | 12.7 | 10.4 | 7.1 | 26.4 | 10.4 | FE-NPT-T-S16-3 |
| 1/4 | 1/8 | 29.7 | 17.5 | 15 | 7.1 | 29.7 | 10.4 | FE-NPT-T-S16-4 |
| 1/4 | 1/4 | 29.7 | 17.5 | 15 | 10.4 | 29.7 | 15 | FE-NPT-T-S16-5 |
| 3/8 | 3/8 | 36.1 | 20.6 | 15 | 12.7 | 36.1 | 15 | FE-NPT-T-S16-6 |
| 1/2 | 1/2 | 39.6 | 25.4 | 19.8 | 17.1 | 39.6 | 19.8 | FE-NPT-T-S16-7 |
| 3/4 | 3/4 | 48.8 | 31.8 | 20.6 | 22.4 | 48.8 | 20.6 | FE-NPT-T-S16-8 |
| 1 | 1 | 48.5 | 42.9 | 25.4 | 28.1 | 48.5 | 25.4 | FE-NPT-T-S16-9 |
| 1 1/4 | 1 1/4 | 59.8 | 50.8 | 25.4 | 27.7 | 59.8 | 25.4 | FE-NPT-T-S16-10 |
| 1 1/2 | 1 1/2 | 65 | 63.5 | 27.7 | 34 | 65 | 27.7 | FE-NPT-T-S16-11 |

ISO TAPERED

| Pipe Size | | Dimensions | | | | | | SS 316 Part No. |
|------------|-------------|------------|------|------|------|------|------|-----------------|
| P-PT, BSPT | P1-PT, BSPT | L | F | B | E | Lx | BX | |
| 1/16 | 1/16 | 21.8 | 11.1 | 9.9 | 4.8 | 21.8 | 9.9 | FE-ISO-T-S16-1 |
| 1/8 | 1/16 | 26.4 | 12.7 | 10.4 | 4.8 | 26.4 | 9.9 | FE-ISO-T-S16-2 |
| 1/8 | 1/8 | 26.4 | 12.7 | 10.4 | 7.1 | 26.4 | 10.4 | FE-ISO-T-S16-3 |
| 1/4 | 1/8 | 29.7 | 17.5 | 15 | 7.1 | 29.7 | 10.4 | FE-ISO-T-S16-4 |
| 1/4 | 1/4 | 29.7 | 17.5 | 15 | 10.4 | 29.7 | 15 | FE-ISO-T-S16-5 |
| 3/8 | 3/8 | 36.1 | 20.6 | 15 | 12.7 | 36.1 | 15 | FE-ISO-T-S16-6 |
| 1/2 | 1/2 | 39.6 | 25.4 | 19.8 | 17.1 | 39.6 | 19.8 | FE-ISO-T-S16-7 |
| 3/4 | 3/4 | 48.8 | 31.8 | 20.6 | 22.4 | 48.8 | 20.6 | FE-ISO-T-S16-8 |
| 1 | 1 | 48.5 | 42.9 | 25.4 | 28.1 | 48.5 | 25.4 | FE-ISO-T-S16-9 |
| 1.25 | 1.25 | 59.8 | 50.8 | 25.4 | 27.7 | 59.8 | 25.4 | FE-ISO-T-S16-10 |
| 1.5 | 1.5 | 65 | 63.5 | 27.7 | 34 | 65 | 27.7 | FE-ISO-T-S16-11 |

ISO PARALLEL

| Pipe Size | | Dimensions | | | | | | SS 316 Part No. |
|------------|-------------|------------|------|------|------|------|------|-----------------|
| P-PT, BSPP | P1-PT, BSPP | L | F | B | E | Lx | Bx | |
| 1/16 | 1/16 | 21.8 | 11.1 | 9.9 | 4.8 | 21.8 | 9.9 | FE-ISO-P-S16-1 |
| 1/8 | 1/16 | 26.4 | 12.7 | 10.4 | 4.8 | 26.4 | 9.9 | FE-ISO-P-S16-2 |
| 1/8 | 1/8 | 26.4 | 12.7 | 10.4 | 7.1 | 26.4 | 10.4 | FE-ISO-P-S16-3 |
| 1/4 | 1/8 | 29.7 | 17.5 | 15 | 7.1 | 29.7 | 10.4 | FE-ISO-P-S16-4 |
| 1/4 | 1/4 | 29.7 | 17.5 | 15 | 10.4 | 29.7 | 15 | FE-ISO-P-S16-5 |
| 3/8 | 3/8 | 36.1 | 20.6 | 15 | 12.7 | 36.1 | 15 | FE-ISO-P-S16-6 |
| 1/2 | 1/2 | 39.6 | 25.4 | 19.8 | 17.1 | 39.6 | 19.8 | FE-ISO-P-S16-7 |
| 3/4 | 3/4 | 48.8 | 31.8 | 20.6 | 22.4 | 48.8 | 20.6 | FE-ISO-P-S16-8 |
| 1 | 1 | 48.5 | 42.9 | 25.4 | 28.1 | 48.5 | 25.4 | FE-ISO-P-S16-9 |
| 1.25 | 1.25 | 59.8 | 50.8 | 25.4 | 27.7 | 59.8 | 25.4 | FE-ISO-P-S16-10 |
| 1.5 | 1.5 | 65 | 63.5 | 27.7 | 34 | 65 | 27.7 | FE-ISO-P-S16-11 |


NPT THREAD

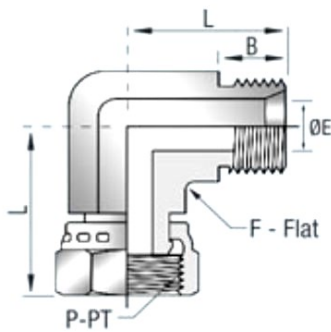
| Pipe Size P-PT, NPT | Dimensions | | | | SS 316 Part No. |
|------------------------|------------|------|------|------|-----------------|
| | L | F | B | E | |
| 1/16 | 18.3 | 9.5 | 9.7 | 3 | ME-NPT-S16-1 |
| 1/8 | 22.4 | 11.1 | 9.7 | 4.8 | ME-NPT-S16-2 |
| 1/4 | 26.7 | 12.7 | 14.2 | 7.1 | ME-NPT-S16-3 |
| 3/8 | 29.7 | 17.5 | 14.2 | 9.6 | ME-NPT-S16-4 |
| 1/2 | 36.8 | 20.6 | 19.1 | 11.9 | ME-NPT-S16-5 |
| 3/4 | 40.4 | 27 | 19.1 | 15.7 | ME-NPT-S16-6 |
| 1 | 50 | 34.9 | 23.9 | 22.4 | ME-NPT-S16-7 |

ISO TAPERED

| Pipe Size P-PT, BSPT | Dimensions | | | | SS 316 Part No. |
|-------------------------|------------|------|------|------|-----------------|
| | L | F | B | E | |
| 1/16 | 18.3 | 9.5 | 9.7 | 3 | ME-ISO-T-S16-1 |
| 1/8 | 22.4 | 11.1 | 9.7 | 4.8 | ME-ISO-T-S16-2 |
| 1/4 | 26.7 | 12.7 | 14.2 | 7.1 | ME-ISO-T-S16-3 |
| 3/8 | 29.7 | 17.5 | 14.2 | 9.6 | ME-ISO-T-S16-4 |
| 1/2 | 36.8 | 20.6 | 19.1 | 11.9 | ME-ISO-T-S16-5 |
| 3/4 | 40.4 | 27 | 19.1 | 15.7 | ME-ISO-T-S16-6 |
| 1 | 50 | 34.9 | 23.9 | 22.4 | ME-ISO-T-S16-7 |

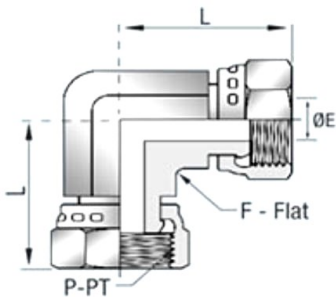
ISO PARALLEL

| Pipe Size P-PT, BSPP | Dimensions | | | | SS 316 Part No. |
|-------------------------|------------|----|----|------|-----------------|
| | L | F | B | E | |
| 1/8 | 16.6 | 11 | 8 | 3.5 | ME-ISO-P-S16-1 |
| 1/4 | 27.8 | 14 | 11 | 4.7 | ME-ISO-P-S16-2 |
| 3/8 | 31.7 | 19 | 12 | 7.9 | ME-ISO-P-S16-3 |
| 1/2 | 37 | 22 | 14 | 11.1 | ME-ISO-P-S16-4 |
| 5/8 | 39 | 22 | 16 | 14.3 | ME-ISO-P-S16-5 |
| 3/4 | 41.6 | 27 | 16 | 16.7 | ME-ISO-P-S16-6 |
| 1 | 49.7 | 23 | 19 | 22.2 | ME-ISO-P-S16-7 |



| Pipe Size | Dimensions | | | | | SS 316 Part No. |
|-----------|------------|------|----|----|------|-----------------|
| | P-PT, BSPP | L | L1 | F | B | |
| 1/8 | 16.6 | 22 | 11 | 8 | 3.5 | SME-S16-1 |
| 1/4 | 27.8 | 31.2 | 19 | 11 | 4.7 | SME-S16-2 |
| 3/8 | 31.7 | 36.2 | 22 | 12 | 7.9 | SME-S16-3 |
| 1/2 | 37 | 41 | 27 | 14 | 11.1 | SME-S16-4 |
| 5/8 | 39 | 41.6 | 27 | 16 | 14.3 | SME-S16-5 |
| 3/4 | 41.6 | 45.3 | 33 | 16 | 16.7 | SME-S16-6 |
| 1 | 49.7 | 53.9 | 41 | 19 | 22.2 | SME-S16-7 |
| 1 1/4 | 54.4 | 60 | 48 | 20 | 28.6 | SME-S16-8 |
| 1 1/2 | 53.7 | 63.3 | 48 | 22 | 33.3 | SME-S16-9 |

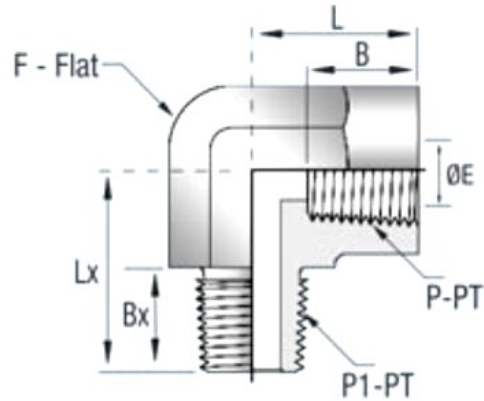
NPT THREAD



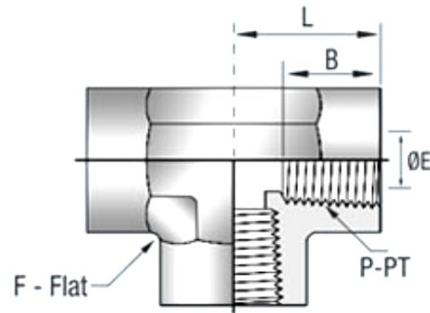
| Pipe Size | Dimensions | | | SS 316 Part No. |
|-----------|------------|------|------|-----------------|
| | P-PT, BSPP | F | L | |
| 1/4 | 14 | 30.5 | 4.7 | SUE-NPT-S16-1 |
| 3/8 | 19 | 33 | 7.9 | SUE-NPT-S16-2 |
| 1/2 | 22 | 38.8 | 11.1 | SUE-NPT-S16-3 |
| 5/8 | 22 | 39.4 | 14.3 | SUE-NPT-S16-4 |
| 3/4 | 27 | 42.3 | 16.7 | SUE-NPT-S16-5 |
| 1 | 33 | 49 | 22.2 | SUE-NPT-S16-6 |
| 1 1/4 | 41 | 58.2 | 28.6 | SUE-NPT-S16-7 |
| 1 1/2 | 48 | 63.3 | 33.3 | SUE-NPT-S16-8 |



NPT THREAD



| Pipe Size | | Dimensions | | | | | | SS 316 Part No. |
|-----------|--------|------------|------|------|------|------|------|-----------------|
| P-PT, | P1-PT, | L | F | B | E | Lx | BX | |
| 1/16 | 1/16 | 21.8 | 11.1 | 9.9 | 3 | 22.4 | 9.7 | SE-NPT-S16-1 |
| 1/16 | 1/8 | 21.8 | 11.1 | 9.9 | 4.8 | 22.4 | 9.7 | SE-NPT-S16-2 |
| 1/16 | 1/4 | 22.4 | 14.3 | 9.9 | 4.8 | 27.7 | 14.2 | SE-NPT-S16-3 |
| 1/16 | 3/8 | 22.4 | 17.5 | 9.9 | 4.8 | 29.7 | 14.2 | SE-NPT-S16-4 |
| 1/8 | 1/16 | 26.4 | 12.7 | 10.4 | 3 | 22.1 | 9.7 | SE-NPT-S16-5 |
| 1/8 | 1/8 | 26.4 | 12.7 | 10.4 | 4.8 | 22.1 | 9.7 | SE-NPT-S16-6 |
| 1/8 | 1/4 | 22.4 | 14.3 | 10.4 | 7.1 | 27.7 | 14.2 | SE-NPT-S16-7 |
| 1/8 | 3/8 | 22.4 | 17.5 | 10.4 | 7.1 | 29.7 | 14.2 | SE-NPT-S16-8 |
| 1/8 | 1/2 | 24.1 | 20.6 | 10.4 | 7.1 | 36.8 | 19.1 | SE-NPT-S16-9 |
| 1/8 | 3/4 | 25.4 | 27 | 10.4 | 7.1 | 40.4 | 19.1 | SE-NPT-S16-10 |
| 1/8 | 1 | 26.4 | 34.9 | 10.4 | 7.1 | 50 | 23.9 | SE-NPT-S16-11 |
| 1/4 | 1/8 | 29.7 | 17.5 | 15 | 4.8 | 25.4 | 9.7 | SE-NPT-S16-12 |
| 1/4 | 1/4 | 29.7 | 17.5 | 15 | 7.1 | 29.7 | 14.2 | SE-NPT-S16-13 |
| 1/4 | 3/8 | 29.7 | 17.5 | 15 | 8.6 | 29.7 | 14.2 | SE-NPT-S16-14 |
| 1/4 | 1/2 | 25.4 | 20.6 | 15 | 8.6 | 36.8 | 19.1 | SE-NPT-S16-15 |
| 1/4 | 3/4 | 25.4 | 27 | 15 | 8.6 | 40.4 | 19.1 | SE-NPT-S16-16 |
| 1/4 | 1 | 41.4 | 34.9 | 15 | 8.6 | 50 | 23.9 | SE-NPT-S16-17 |
| 3/8 | 1/4 | 36.1 | 20.6 | 15 | 7.1 | 32 | 14.2 | SE-NPT-S16-18 |
| 3/8 | 3/8 | 36.1 | 20.6 | 15 | 9.6 | 32 | 14.2 | SE-NPT-S16-19 |
| 3/8 | 1/2 | 36.1 | 20.6 | 15 | 11.9 | 36.8 | 19.1 | SE-NPT-S16-20 |
| 3/8 | 3/4 | 31.2 | 27 | 15 | 11.9 | 40.4 | 19.1 | SE-NPT-S16-21 |
| 3/8 | 1 | 41.4 | 34.9 | 15 | 11.9 | 50 | 23.9 | SE-NPT-S16-22 |
| 1/2 | 1/4 | 39.6 | 25.4 | 19.8 | 7.1 | 35.1 | 14.2 | SE-NPT-S16-23 |
| 1/2 | 3/8 | 39.6 | 25.4 | 19.8 | 9.6 | 35.1 | 14.2 | SE-NPT-S16-24 |
| 1/2 | 1/2 | 39.6 | 25.4 | 19.8 | 11.9 | 39.6 | 19.1 | SE-NPT-S16-25 |
| 1/2 | 3/4 | 31.2 | 27 | 19.8 | 15.7 | 40.4 | 19.1 | SE-NPT-S16-26 |
| 1/2 | 1 | 41.4 | 34.9 | 19.8 | 15.7 | 50 | 23.9 | SE-NPT-S16-27 |
| 3/4 | 3/4 | 48.8 | 31.8 | 20.6 | 15.7 | 42.4 | 19.1 | SE-NPT-S16-28 |
| 3/4 | 1 | 41.4 | 34.9 | 20.6 | 22.4 | 50 | 23.9 | SE-NPT-S16-29 |
| 1 | 1 | 48.5 | 42.9 | 25.4 | 22.4 | 49.3 | 23.9 | SE-NPT-S16-30 |
| 1-1/4 | 1 1/4 | 60.5 | 50.8 | 25.4 | 31.8 | 60.5 | 23.9 | SE-NPT-S16-31 |

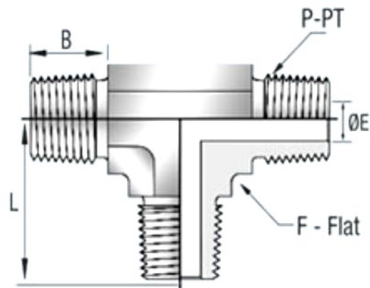

NPT THREAD

| Pipe Size P-PT, NPT | Dimensions | | | | SS 316 Part No. |
|------------------------|------------|------|------|------|-----------------|
| | L | F | B | E | |
| 1/16 | 21.8 | 11.1 | 9.9 | 4.8 | FT-NPT-S16-1 |
| 1/8 | 26.4 | 12.7 | 10.4 | 8.6 | FT-NPT-S16-2 |
| 1/4 | 29.7 | 17.5 | 15 | 11.4 | FT-NPT-S16-3 |
| 3/8 | 36.1 | 20.6 | 15 | 15 | FT-NPT-S16-4 |
| 1/2 | 39.6 | 25.4 | 19.8 | 18.5 | FT-NPT-S16-5 |
| 3/4 | 48.8 | 31.8 | 20.6 | 23.9 | FT-NPT-S16-6 |
| 1 | 48.5 | 42.9 | 25.4 | 29.7 | FT-NPT-S16-7 |
| 1 1/4 | 59.8 | 50.8 | 25.4 | 37.2 | FT-NPT-S16-8 |
| 1 1/2 | 65 | 63.5 | 27.7 | 43.3 | FT-NPT-S16-9 |

ISO PARALLEL

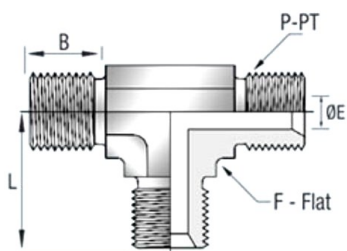
| Pipe Size P-PT, BSPP | Dimensions | | | | SS 316 Part No. |
|-------------------------|------------|------|------|------|-----------------|
| | L | F | B | E | |
| 1/16 | 21.8 | 11.1 | 9.9 | 4.8 | FT-ISO-P-S16-1 |
| 1/8 | 26.4 | 12.7 | 10.4 | 8.6 | FT-ISO-P-S16-2 |
| 1/4 | 29.7 | 17.5 | 15 | 11.4 | FT-ISO-P-S16-3 |
| 3/8 | 36.1 | 20.6 | 15 | 15 | FT-ISO-P-S16-4 |
| 1/2 | 39.6 | 25.4 | 19.8 | 18.5 | FT-ISO-P-S16-5 |
| 3/4 | 48.8 | 31.8 | 20.6 | 23.9 | FT-ISO-P-S16-6 |
| 1 | 48.5 | 42.9 | 25.4 | 29.7 | FT-ISO-P-S16-7 |
| 1-1/4 | 59.8 | 50.8 | 25.4 | 37.2 | FT-ISO-P-S16-8 |
| 1-1/2 | 65 | 63.5 | 27.7 | 43.3 | FT-ISO-P-S16-9 |

NPT THREAD



| Pipe Size | Dimensions | | | | SS 316 Part No. |
|-----------|------------|------|------|------|-----------------|
| P-PT, NPT | L | F | B | E | |
| 1/16 | 18.3 | 9.5 | 9.7 | 3 | MT-NPT-S16-1 |
| 1/8 | 22.4 | 11.1 | 9.7 | 4.8 | MT-NPT-S16-2 |
| 1/4 | 26.7 | 12.7 | 14.2 | 7.1 | MT-NPT-S16-3 |
| 3/8 | 29.7 | 17.5 | 14.2 | 9.6 | MT-NPT-S16-4 |
| 1/2 | 36.8 | 20.6 | 19.1 | 11.9 | MT-NPT-S16-5 |
| 3/4 | 42.4 | 27 | 19.1 | 15.7 | MT-NPT-S16-6 |
| 1 | 49.3 | 34.9 | 23.9 | 22.4 | MT-NPT-S16-7 |
| 1 1/4 | 56.4 | 42.9 | 23.9 | 27.7 | MT-NPT-S16-8 |
| 1 1/2 | 67.1 | 47.6 | 26.2 | 34 | MT-NPT-S16-9 |

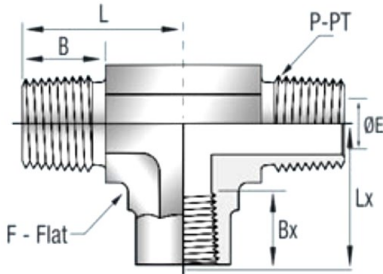
ISO PARALLEL



| Pipe Size | Dimensions | | | | SS 316 Part No. |
|------------|------------|----|----|------|-----------------|
| P-PT, BSPP | L | F | B | E | |
| 1/8 | 16.6 | 11 | 8 | 3.5 | MT-ISO-P-S16-1 |
| 1/4 | 27.8 | 19 | 11 | 4.7 | MT-ISO-P-S16-2 |
| 3/8 | 31.7 | 22 | 12 | 7.9 | MT-ISO-P-S16-3 |
| 1/2 | 37 | 27 | 14 | 11.1 | MT-ISO-P-S16-4 |
| 5/8 | 39 | 27 | 16 | 14.3 | MT-ISO-P-S16-5 |
| 3/4 | 41.9 | 33 | 16 | 16.7 | MT-ISO-P-S16-6 |
| 1 | 49.7 | 41 | 19 | 22.2 | MT-ISO-P-S16-7 |
| 1 1/4 | 54.4 | 48 | 20 | 28.6 | MT-ISO-P-S16-8 |
| 1 1/2 | 53.7 | 48 | 22 | 33.3 | MT-ISO-P-S16-9 |



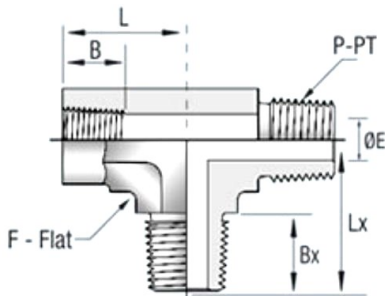
NPT THREAD



| PIPE SIZE | DIMENSION | | | | | | SS 316 Part No. | |
|-----------|-----------|------|------|------|------|------|-----------------|----------------------|
| | P-PT NPT | L | F | B | E | LX | | BX |
| 1/16 | | 18.3 | 11.1 | 9.7 | 3 | 21.8 | 9.9 | FBT-NPT-S16-1 |
| 1/8 | | 22.1 | 12.7 | 9.7 | 4.8 | 26.4 | 10.4 | FBT-NPT-S16-2 |
| 1/4 | | 29.7 | 17.5 | 14.2 | 7.1 | 29.7 | 15 | FBT-NPT-S16-3 |
| 3/8 | | 32 | 20.6 | 14.2 | 9.6 | 36.1 | 15 | FBT-NPT-S16-4 |
| 1/2 | | 39.6 | 25.4 | 19.1 | 11.9 | 39.6 | 19.8 | FBT-NPT-S16-5 |
| 3/4 | | 42.4 | 31.8 | 19.1 | 15.7 | 48.8 | 20.6 | FBT-NPT-S16-6 |
| 1 | | 49.3 | 42.9 | 23.9 | 22.4 | 48.5 | 25.4 | FBT-NPT-S16-7 |

FEMALE RUN TEE

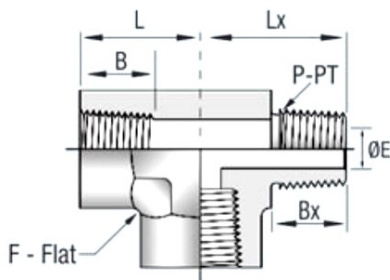
NPT THREAD



| Pipe Size | Dimensions | | | | | | SS 316 Part No. | |
|-----------|------------|------|------|------|------|------|-----------------|----------------------|
| | P-PT, NPT | L | F | B | E | Lx | | Bx |
| 1/16 | | 21.8 | 11.1 | 9.9 | 3 | 18.3 | 9.7 | FRT-NPT-S16-1 |
| 1/8 | | 26.4 | 12.7 | 10.4 | 4.8 | 22.1 | 9.7 | FRT-NPT-S16-2 |
| 1/4 | | 29.7 | 17.5 | 15 | 7.1 | 29.7 | 14.2 | FRT-NPT-S16-3 |
| 3/8 | | 36.1 | 20.6 | 15 | 9.6 | 32 | 14.2 | FRT-NPT-S16-4 |
| 1/2 | | 39.6 | 25.4 | 19.8 | 11.9 | 39.6 | 19.1 | FRT-NPT-S16-5 |
| 3/4 | | 48.8 | 31.8 | 20.6 | 15.7 | 42.4 | 19.1 | FRT-NPT-S16-6 |
| 1 | | 48.5 | 42.9 | 25.4 | 22.4 | 49.3 | 23.9 | FRT-NPT-S16-7 |



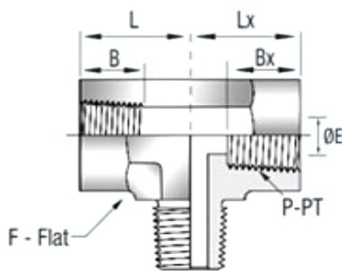
NPT THREAD



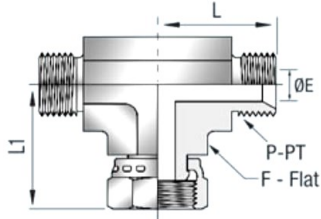
| Pipe Size | Dimensions | | | | | | SS 316 Part No. |
|-----------|------------|------|------|------|------|------|-----------------|
| | L | F | B | E | LX | BX | |
| 1/16 | 21.8 | 11.1 | 9.9 | 3 | 18.3 | 9.7 | ST-NPT-S16-1 |
| 1/8 | 26.4 | 12.7 | 10.4 | 4.8 | 22.1 | 9.7 | ST-NPT-S16-2 |
| 1/4 | 29.7 | 17.5 | 15 | 7.1 | 29.7 | 14.2 | ST-NPT-S16-3 |
| 3/8 | 36.1 | 20.6 | 15 | 9.6 | 32 | 14.2 | ST-NPT-S16-4 |
| 1/2 | 39.6 | 25.4 | 19.8 | 11.9 | 39.6 | 19.1 | ST-NPT-S16-5 |
| 3/4 | 48.8 | 31.8 | 20.6 | 15.7 | 42.4 | 19.1 | ST-NPT-S16-6 |
| 1 | 48.5 | 42.9 | 25.4 | 22.4 | 49.3 | 23.9 | ST-NPT-S16-7 |

BRANCH TEE

NPT THREAD

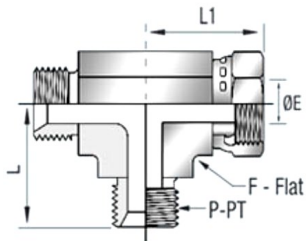


| Pipe Size | Dimensions | | | | | | SS 316 Part No. |
|-----------|------------|------|------|------|------|------|-----------------|
| | L | F | B | E | LX | BX | |
| 1/16 | 21.8 | 11.1 | 9.9 | 3 | 18.3 | 9.7 | BT-NPT-S16-1 |
| 1/8 | 26.4 | 12.7 | 10.4 | 4.8 | 22.1 | 9.7 | BT-NPT-S16-2 |
| 1/4 | 29.7 | 17.5 | 15 | 7.1 | 29.7 | 14.2 | BT-NPT-S16-3 |
| 3/8 | 36.1 | 20.6 | 15 | 9.6 | 32 | 14.2 | BT-NPT-S16-4 |
| 1/2 | 39.6 | 25.4 | 19.8 | 11.9 | 39.6 | 19.1 | BT-NPT-S16-5 |
| 3/4 | 48.8 | 31.8 | 20.6 | 15.7 | 42.4 | 19.1 | BT-NPT-S16-6 |
| 1 | 48.5 | 42.9 | 25.4 | 22.4 | 49.3 | 23.9 | BT-NPT-S16-7 |



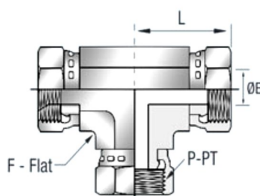
| PIPE SIZE | DIMENSION | | | | SS 316 Part No. |
|-----------|------------|------|----|------|-----------------|
| | P-PT, BSPP | L | L1 | F | |
| 1/8 | 16.6 | 22 | 11 | 3.5 | SBT-S16-1 |
| 1/4 | 27.8 | 31.2 | 19 | 4.7 | SBT-S16-2 |
| 3/8 | 31.7 | 36.2 | 27 | 7.9 | SBT-S16-3 |
| 1/2 | 37 | 41 | 27 | 11.1 | SBT-S16-4 |
| 5/8 | 39 | 41.6 | 27 | 14.3 | SBT-S16-5 |
| 3/4 | 41.6 | 45.3 | 33 | 16.7 | SBT-S16-6 |
| 1 | 49.7 | 53.9 | 41 | 22.2 | SBT-S16-7 |
| 1.25 | 54.4 | 60 | 48 | 28.6 | SBT-S16-8 |

SWIVEL RUN TEE

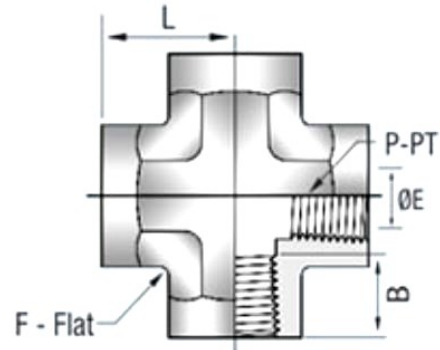


| Pipe Size | DIMENSION | | | | SS 316 Part No. |
|-----------|------------|------|----|------|-----------------|
| | P-PT, BSPP | L | L1 | F | |
| 1/8 | 16.6 | 22 | 11 | 3.5 | SRT-S16-1 |
| 1/4 | 27.8 | 31.2 | 19 | 4.7 | SRT-S16-2 |
| 3/8 | 31.7 | 36.2 | 27 | 7.9 | SRT-S16-3 |
| 1/2 | 37 | 41 | 27 | 11.1 | SRT-S16-4 |
| 5/8 | 39 | 41.6 | 27 | 14.3 | SRT-S16-5 |
| 3/4 | 41.6 | 45.3 | 33 | 16.7 | SRT-S16-6 |
| 1 | 49.7 | 53.9 | 41 | 22.2 | SRT-S16-7 |
| 1 1/4 | 54.4 | 60 | 48 | 28.6 | SRT-S16-8 |

SWIVEL UNION TEE



| Pipe Size | Dimensions | | | SS 316 Part No. |
|-----------|------------|----|------|-----------------|
| | P-PT, BSPP | L | F | |
| 1/4 | 30.5 | 14 | 4.7 | SUT-S16-1 |
| 3/8 | 33 | 19 | 7.9 | SUT-S16-2 |
| 1/2 | 38.8 | 22 | 11 | SUT-S16-3 |
| 5/8 | 39.4 | 22 | 14.3 | SUT-S16-4 |
| 3/4 | 42.3 | 27 | 16.7 | SUT-S16-5 |
| 1 | 49 | 33 | 22.2 | SUT-S16-6 |
| 1 1/4 | 58.2 | 41 | 28.6 | SUT-S16-7 |


NPT THREAD

| Pipe Size | DIMENSION | | | | SS 316 Part No. | |
|-----------|-----------|------|------|------|-----------------|---------------------|
| | P-PT, NPT | L | F | B | | E |
| 1/16 | | 21.8 | 11.1 | 9.9 | 4.8 | FC-NPT-S16-1 |
| 1/8 | | 26.4 | 12.7 | 10.4 | 8.6 | FC-NPT-S16-2 |
| 1/4 | | 29.7 | 17.5 | 15 | 11.4 | FC-NPT-S16-3 |
| 3/8 | | 36.1 | 20.6 | 15 | 15 | FC-NPT-S16-4 |
| 1/2 | | 39.6 | 25.4 | 19.8 | 18.5 | FC-NPT-S16-5 |
| 3/4 | | 48.8 | 31.8 | 20.6 | 23.9 | FC-NPT-S16-6 |
| 1 | | 48.5 | 42.9 | 25.4 | 29.7 | FC-NPT-S16-7 |

ISO TAPERED

| Pipe Size | Dimensions | | | | SS 316 Part No. | |
|-----------|------------|------|------|------|-----------------|-----------------------|
| | P-PT, BSPT | L | F | B | | E |
| 1/16 | | 21.8 | 11.1 | 9.9 | 4.8 | FC-ISO-T-S16-1 |
| 1/8 | | 26.4 | 12.7 | 10.4 | 8.6 | FC-ISO-T-S16-2 |
| 1/4 | | 29.7 | 17.5 | 15 | 11.4 | FC-ISO-T-S16-3 |
| 3/8 | | 36.1 | 20.6 | 15 | 15 | FC-ISO-T-S16-4 |
| 1/2 | | 39.6 | 25.4 | 19.8 | 18.5 | FC-ISO-T-S16-5 |
| 3/4 | | 48.8 | 31.8 | 20.6 | 23.9 | FC-ISO-T-S16-6 |
| 1 | | 48.5 | 42.9 | 25.4 | 29.7 | FC-ISO-T-S16-7 |